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Sci 1622.11 Bd. July, 1892.
172

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FROM

American Unitarian Assoc.
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11 Apr. 1859 - 29 Dec. 1862.

THE

NEW ENGLAND FARMER;

A MONTHLY JOURNAL,

DEVOTED TO

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SIMON BROWN, EDITOR.

FREDERICK HOLBROOK AND HENRY F. FRENCH, ASSOCIATE EDITORS.

VOLUME VII.

BOSTON:
PUBLISHED BY JOEL NOURSE,
QUINCY HALL.
1855.

Sci 1622.11

1859, April 11. Gift of
the Amer. Unit. Assoc.
(Vol. VII. No. 1-6, 11.)

[illegible]2, Dec. [illegible],
(Vol. [illegible] No. 7-10, 12; XII. 4-12; XIII. 7, 8, 11.)
Duplicate money

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THE
NEW ENGLAND FARMER:
A MONTHLY
AGRICULTURAL JOURNAL,
FOR THE FARM AND GARDEN.

SIMON BROWN, EDITOR.

FREDERIC HOLBROOK, OF VERMONT, HENRY F. FRENCH, OF NEW HAMPSHIRE,
ASSOCIATE EDITORS.

Without encouragement of AGRICULTURE, and thereby increasing the number of its people,
any country, however blessed by nature, must continue poor.—SWIFT.

Vol. VII. JANUARY, 1855. No. I.

BOSTON:
JOEL NOURSE, PUBLISHER,
QUINCY HALL.

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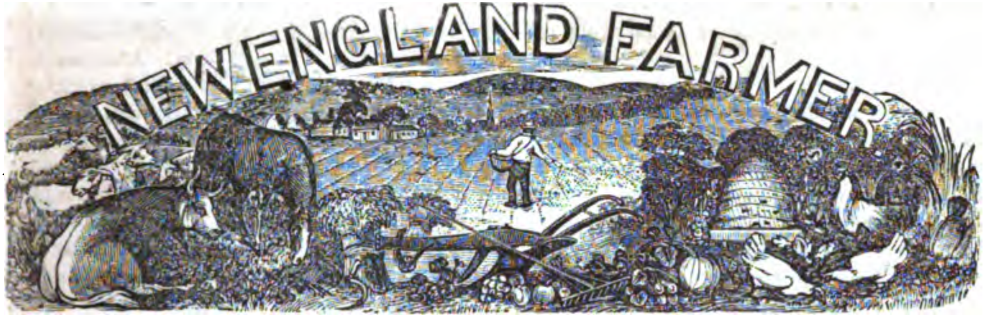
POSTAGE.—The Postage on the Monthly Farmer to Subscribers, is now twelve cents a year, to be paid quarterly or yearly, in advance, at the office where it is received.



DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

VOL. VII. BOSTON, JANUARY, 1855. NO. 1.

JOEL NOURSE, Proprietor.
Office....Quincy Hall.

SIMON BROWN, Editor.

FRED'K HOLBROOK, } Associate
HENRY F. FRENCH, } Editors.

CALENDAR FOR JANUARY.

"Great things doeth He which we cannot comprehend; for He saith to the snow, be thou on the earth."

"By His commandment He maketh the snow to fall apace: as birds flying He scattereth the snow; and the falling down thereof is as the lighting of grasshoppers; the eye marveleth at the beauty of the whiteness thereof; and the heart is astonished at the raining of it."

JANUARY,—the month of congratulations and good wishes, as well as of new hopes, new promises and determinations. Every first of JANUARY that we arrive at, is an imaginary mile-stone on the turnpike track of human life; at once a resting-place for thought and meditation, and a starting-point for fresh exertion in the performance of our journey. The man who does not at least *propose to himself* to be better *this* year than he was the last, must be either very good or very bad indeed! And only to *propose* to be better, is something; if nothing else, it is an acknowedgment of our *need* to be so,—which is the first step toward amendment. But in fact, to *propose* to oneself to do well, is in some sort to *do* well, positively; for there is no such thing as a stationary point in human endeavors; he who is not worse to-day than he was yesterday, is better; and he who is not better, is worse. Let us, then, from this stand-point, look back and note the errors of the past, so as to shun them in the future, and make its excellencies the starting-place of more signal virtues throughout this new period of revolving Time.

Some persons sigh for "city life" in the winter—"the country is so barren and dull,—there are no theatres or balls to attend, and no notabilities to lecture." Ah, then they have not assisted to make the country what it should be in winter. Are there more intelligent or more brilliant assembles under any gas lights in the city than gathered at the Town Hall last night? Indeed, the city itself was there. Did hearts ever beat with keener enjoyment, or swain ever "trip through the mazy dance," with more appropriate delight than in the presence of that refined and intellectual assemblage? And as to theatres, stars of the first magnitude may well envy the beauty and brilliancy of the women, or the wit and heroism of the men, who occasionally "bring down the house" in thunders of applause in the Old Academy Halls. Bare walls, smutty roofs and dirty streets, bound the vision in the city, while squalid wretchedness, crime and destitution are ghastly objects in the fore-ground. Cities we must have, but they are necessary evils: let us not forget the advantages of our own positions, in longing for the unsatisfying attractions of crowded and artificial life.

The country, it is true, *has* changed—the fields are "brown and sere," the singing birds are gone, the earth is hard and unyielding, and the trees are leafless and bare. But all these changes reveal new beauties,—the thick leaves had long concealed the bloom-buds of the fruit trees which now stand out upon the otherwise bare branches, and, "dressed in their wind-and-water-proof coats, bravo the utmost severity of the season."

The leaves, having performed their office for the season, now fall to the ground, there to supply nourishment for future crops. But there is one left, which neither frost, nor winds, nor beating rains have parted from its stem:—

"The one red leaf, the last of its clan,
That dances as often as dance it can;
Hanging so light and hanging so high,
On the topmost twig that looks up at the sky,"

was influenced by, and did influence, the lowest root which pierces the humid soil. The earth, hard and rugged as it now is, is treasuring the keen frosts, in order to throw up its compact surface into light and porous forms when vernal suns invite the sower again to scatter his seeds. *Now* the processes of nature for the renewal of her gifts may be more aptly observed than at any other period.

But the country will ever be barren and dull to him, or her, who has no habits of observation; who will not mark the soft-falling snow, or see it on the north-wind curling over the hills and walls, or about the trunks of trees, assuming fantastic forms,. and filling the waste with imaginary grottoes, churches and castles. To such, books have small attraction, and the country little but *ennui* or disgust. The poet tells us of a man to whom

> "The primrose on the river's brim
> A yellow primrose was to him,
> And it was nothing more."

Few, we trust, are so indifferent to the teachings of nature, or forget this bountiful source of enjoyment,

> "Where living things, and things inanimate,
> Do speak at Heaven's command, to eye and ear,
> And speak to social reason's inner sense,
> With inarticulate language."

We cannot refrain from urging again upon all, the importance of a proper appropriation of the leisure winter hours. Some—we know them well—who are young, healthy, with good natural abilities, and full of ambition in their daily routine of physical labor, are yet sadly deficient in those mental acquirements, without which, no one in this country may reasonably aspire to more than mere drudgery. Homely as the adage is, we urge it now—"it is never too late to learn." There are now persons in the Congress of the United States, on the Bench, and others who have secured wealth and distinction, who could not read or write at the age of twenty-one! Alfred the Great was twelve years of age before he could read. If his history is not familiar to you, young man and woman, there remains to you a treat more instructive and gratifying than can be found in most physical sources of enjoyment. He always carried a book in his bosom, and amidst the great business and hurries of government, snatched moments of leisure to read. He became the great legislator and pre-eminent patriot-king of England. Most of our towns possess good libraries, and the sources of reading and learning are accessible to all. Seek, in the mean time, to understand and apply scientific knowledge to the business of your profession, whatever it may be, remembering that its true end is to enrich human life with useful arts and inventions.

WINTER SCHOOLS.—These should receive your careful consideration—make them the best of their kind. Assist and encourage the teacher; his task is one of trial, and often of great vexation, from the injudicious interference of parents in the regulation and discipline of the school. To secure success, there must be order in every business, but it is indispensable in schools.

We have often set before the reader most of the specific duties of the farmer in the winter months, and need not now to repeat them. After securing the comforts and means of improvement for the family, his first important duties are *the proper shelter and feeding of his stock*. It is of little consequence to secure bountiful crops if they are distributed in a careless and slovenly manner in the winter. Those who have a supply of roots will find the following to be a profitable mode of feeding. Cut hay, straw, corn stalks or husks, and throw it into the feed trough; then add such quantity of clean roots as you desire to feed to a given number of cattle and cut them with the hay. This process, though a little difficult, gives the dry fodder the taste of the roots, so that the whole will be eaten with a high relish. But cleanliness, good bedding, gentle treatment, and kind care every way, will save hay and grain and take the stock through in good condition.

But we have said enough in this our first salutation of the year. That we may ramble along in pleasant paths together, plucking the fruits and flowers that present themselves on the way, and treasuring up that wisdom which is better than rubies, is the sincere desire of him who now wishes you A HAPPY NEW YEAR.

For the New England Farmer.

NEW PLANTS.

Of the new plants recently introduced from Eastern Asia, there are two that promise to be of considerable value to the agricultural world. These are the *Holcus saccharatus*, or North China sugar-cane, and the *Dioscorea japonica*, (Japanese yam.)

The fruit is a sort of broom corn, producing a kind of sugar-cane, whose stalks attain seven and eight feet in height. The experiments of Mons. LOUIS VILMORIN and other French chemists, show that the stalks produced on one acre will yield 26,000 lbs. of very sweet juice, containing from 10 to 13 per cent. of pure sugar. The juice from canes raised the past season, near Paris, has produced 52 to 78 per 1,000 of pure alcohol. The residue of the canes can be fed to cattle and sheep. The holcus, in its green state, is a rapid grower, and valuable to be raised as a crop for soiling, to be cultivated in the same manner as Indian corn.

The Japanese yam is beginning to be cultivated in France as a substitute for the diseased potato. It is largely grown in China, is very hardy, and is easily propagated by cuttings of its long vines, and by its roots, which are, like those of the potato, of annual growth. The roots are large and long, the flesh very mealy and devoid of any peculiar taste or flavor. The Japanese yam is pronounced, by eminent French agriculturists, a most valuable acquisition. W.

☞ There is no greater obstacle in the way of success in life, than trusting for something to turn up, instead of going to work and turning up something.

For the New England Farmer.

THE CONCORD GRAPE.

Mr. Brown:—There have been a number of notices in the *Farmer* of a new variety of grape, cultivated by Mr. Bull, of Concord, Mass. It is said to be a native of that town, and is highly recommended on account of its fruitfulness, good flavor, and its adaptation to a northern climate. If it answers, in many respects, what it is recommended to be, it ought to be very generally introduced, and cultivated in every latitude where other varieties of the grape will not grow on account of the climate. It is, however, put beyond the reach of common persons, at present, unless they will pay an exorbitant price for a cutting of the grape, or for a seedling of three years old.

Hovey & Co., of Boston, with an understanding, probably, with Mr. Bull, have the control of the grape, and charge five dollars for a single cutting or seedling. From this charge, it appears that the Concord grape vine has become a matter of great speculation between two or more individuals. This kind of speculation ought to be frowned upon by the press, especially the agricultural press. It is true, no individuals are obliged to buy of these men; but, if the grape is so valuable as they and the press have recommended it, common people have an anxiety to obtain it by paying a fair compensation for it. I think Mr. Bull's grape is a good variety; but his price is not for a moment to be tolerated; and the press which tolerates such extortion and speculation, does no good service to community, either in an agricultural or moral point of view. We do not say this speculation is tolerated by the press, especially the agricultural press. Of the grapes alluded to, there are three or four thousand seedlings for sale. These, at five dollars a piece, amount to many thousand dollars, and their actual cost to those concerned in the speculation is not five hundred dollars. The seeds are not on sale, and cannot be had at the horticultural seed store at Boston, and every man of common sense knows the reason.

While on this subject, I wish to notice another speculation of the same kind that is carried on by an individual in New York city. A Mr. Lawton advertises that he has an improved variety of the Blackberry—has three acres under cultivation—bear bountifully from four to six weeks—shoots spring up from the main stock, bear well and die in the fall. Mr. Lawton sells his packages of one dozen each for $10. This is one of the Blackberry speculations, and will probably entitle Mr. Lawton to an honorary degree in the Horticultural Society.

The above remarks are somewhat severe, but not uncalled for. If they will elicit further information on this and other subjects immediately connected, the desire of the writer will be accomplished. John Wilcox.

Newport, N. H., Nov., 1854.

Remarks.—Mr. Bull is a townsman and neighbor of ours, and we believe an honest man. Believing him able to set himself right in this matter, we handed him the letter of our correspondent, and he has communicated to us the following in reply:—

Concord, Nov. 30, 1854.

Mr. Brown:—Your correspondent, John Wilcox, thinks the "Concord grape" has become a matter of speculation. When you publish his communication, I would feel obliged to you if you would state, in your own way, the facts of the case; that is to say, that I have been engaged for twelve years in raising seedling grapes, during which time I have spared no pains in collecting every variety of native grape that had a local fame—many of which cost me large sums, and all of which, I may add, came to the fire at last as worthless, in comparison with the Concord, as did also any quantity of seedlings, which did not prove to be good, and of which I have burned cords. My sole purpose during this time has been to obtain a good table and wine grape for New England, which should be early, hardy and prolific. Having succeeded in this, my next purpose has been to propagate it as rapidly as possible, with a view to dissemination, and also to bring the price within the means of all desiring to purchase. Thousands of young vines were destroyed by the fervent sun of July 4 and 5 last, leaving me less than enough to supply my orders, and thus frustrating my purpose for this autumn; but I hope to have a good supply ready for the spring planting, having, at great expense, put up a large forcing-house for propagating them; this will enable me to reduce the price, which I very much desire.

There is no monopoly of sale. To prevent the sale of spurious vines, it was necessary to issue the grape to the public through a respectable and responsible house. Messrs. Hovey & Co. were chosen for this purpose, and their well-established character was a sufficient guarantee to all purchasers; whoever purchased the Concord of them, Messrs. Breck & Son, or of myself, may be sure they have got the true vine.

In conclusion, I assure the public that I shall propagate the Concord as fast as possible, and shall reduce the price as soon as the supply can be made to bear a better proportion to the demand. Yours truly, E. W. Bull.

We know little of Mr. Lawton's operations with the blackberry, but presume he will be able to justify all his movements. At any rate, our columns are open for any fair statement from him.

FALL PLOWING.

Friend Hildreth.—Dear Sir:—At a meeting of the Hillsboro' Agricultural Society, held at Nashua, Sept. 9th, the subject of fall plowing was pretty thoroughly discussed, and in an account of that meeting, published in the *Granite Farmer* of Sept. 30, some things that I did not say are attributed to me, and many things that I did say were left out.

I am in favor of fall plowing for certain kind of land, especially all gardens, nurseries, and almost any land that is weedy, and would need plowing three times before planting, and I would plow deep, whether in fall or spring, and not shallow, as I was reported to have said. I stated at the above named meeting, that tough sods, that were laid up loose, and exposed to the weather all winter, would decay sooner than those tha were turned in a flat furrow, and not exposed. Among the reasons given in favor of fall plowing were the following, viz., that it was the very best way to destroy the cut-worm, especially if done late,—that weeds, potato vines, leaves &c., would be rotten, and out of the way in spring, and that unripe seeds would be destroyed, and the seeds of some weeds would germinate so late as to do no harm.

The principal objection to fall plowing is that the land is more liable to wash and blow away than if not plowed.

The cold of last Sunday and Monday morning, was more severe here than I ever knew before at this season, being at 9 degrees above 0, from 4 o'clock to ½ past 7, on Monday, and apples, cabbages, turnips, squashes, celery,&c., were injured in many instances.

Yours, &c., B. F. CUTTER.

Pelham, Nov. 4, 1854.

Granite Farmer.

TO ASCERTAIN THE WEIGHT OF LIVE STOCK.

First, see that the animal stands square; then, with a string, take his circumference just behind the shoulder-blade, and measure the feet and inches—this is the *girth*. Then measure from the bone of the tail which plumbs the line with the hinder part of the buttock, and direct the string along the back to the forepart of the shoulder-blade, and this will be the *length*. Then, work the figures thus:—Suppose girth of bullock 6 feet 4 inches, length 5 feet 3 inches, which multiplied together makes 33 square superficial feet; and these, multiplied by 23—the number of pounds allowed for each superficial foot of cattle measuring less than *seven* and more than *five* feet in girth—make 759 lbs. When the animal measures less than *nine* and more than *seven* feet in girth, 31 is the number of pounds to be estimated for each superficial foot. And suppose a small animal to measure two feet in girth and two feet in length; these multiplied together make 4 feet, which, multiplied by *eleven*—the number of pounds allowed for each square foot when cattle measure less than three feet in girth—make 44 lbs.

Again, suppose a calf or sheep, &c., to measure 4 feet 6 inches in girth, and 3 feet 9 inches in length, that multiplied together, makes 16 square feet, and these multiplied by 19, the number of pounds allowed for cattle measuring less than five and more than 3 feet in girth, make 256 lbs. The dimension in girth and length of the back of cattle, sheep, calves and hogs, taken this way, are as exact as is at all necessary for common computation or valuation of stock, and will answer to the four quarters of the animal, sinking the offal. A deduction must be made for animals half fat, of one pound in twenty from those that are fat; and for a cow that has had calves, one pound must be allowed, in addition to the one for not being fat, upon every twenty.

GOOD FRUIT.—The *Wisconsin Farmer* says:—"Wisconsin can produce as good fruit as any other State in the Union." Well, let us see you do it.

THE VOICE OF AUTUMN.

BY W. C. BRYANT.

There comes from yonder height
A soft, repining sound,
Where forest leaves are bright,
And fall like flakes of light
To the ground.

It is the autumn breeze,
That, lightly floating on,
Just skims the weedy leas,
Just stirs the glowing trees,
And is gone.

He moans by sedgy brook,
And visits, with a sigh,
The last pale flowers that look,
From out their sunny nook,
At the sky.

O'er shouting children flies
That light October wind;
And, kissing cheeks and eyes,
He leaves their merry cries
Far behind;

And wanders on to make
That soft, uneasy sound,
By distant wood and lake,
Where distant fountains break
From the ground.

No bower where maidens dwell
Can win a moment's stay;
Nor fair, untrodden dell;
He sweeps the upland swell,
And away!

Mourn'st thou thy homeless state,
O, soft, repining wind!
That early seek'st, and late,
The rest it is thy fate
Not to find!

Not on the mountain's breast,
Not on the ocean's shore,
In all the East and West;—
The wind that stops to rest
Is no more.

By valleys, woods and springs,
No wonder thou shouldst grieve
For all the glorious things
Thou touchest with thy wings
And must leave.

PIPER, OR WITCH GRASS.

Farmers and gardners need a large stock of the article, which made Job so contented under his afflictions, who have grounds infested with this abominable scourge. The old *saw* that the only way to kill it was to "dry it, and then put it into your pipe and smoke it, *and be careful of the ashes*," only shows the trouble connected with its extermination. I recollect shaking out a handful and laying it up to take the air upon a stick of old timber. A few weeks afterwards I found, to my astonishment, a thrifty bunch of grass, the roots had penetrated the spongy stick, and were very far from discouraged.

All those who have had "their hands in the dirt," are familiar with the hard, wiry extremities of piper roots. They will not turn out of their course for a potato, or a chip, but are often found grown through them.

Piper grass will spread like an epidemic. Some farmers let the grass stand where it is in a hay-field until the seed is ripened, and so spread oceans of it. Sometimes soil from the wayside is carted to the barn-yard containing the mischievous article. Don't you think that the stamping of the cattle or the composting will kill it, or render it harmless? Just give it a fair chance in your fields and you will see something *green*, if such has been your management.

I have spent a good many dollars to keep the upper hands of my piper grass. I have hired land dug all over with a ten-tined fork, but then it would be left so mellow and fine that the few remaining bits would take courage and give me the most unquestionable evidence of their existence in a few days.

It won't pay to plant small seeds in this foul soil. You may get along with corn and potatoes by great care, but any weaker plants are too easily overpowered. I have found a great saving in the culture of such land, to plant as late as it would do, so that the corn might get up as soon as the witch grass, if not a little before. If you plant early in May, during the cold days that may follow, the grass will be pushing up, while the seed sown will remain inactive. It is better, therefore, to plant later, so that the weather will encourage for the corn a growth as rapid as possible. A laborious hoeing may thus be saved. And when you consider how constantly the soil, mellowed by the plow before planting, is settling down, compact and solid, it may be questioned if the advantages claimed for early planting counterbalance those in favor of depositing the seed upon the warm furrows, recently turned, after the season has become favorable for their rapid germination.

The quicker you can get your corn to shade your land, the less expense for hoeing. I, therefore, plant the hills, (and yet I never make hills) two and a half feet one way and four feet the other. Thus I am able to drive the horse through with the new cultivator, and by going close to the corn I leave very little land to be hoed over. I suppose some may not understand to what cultivator I refer. It is one that has saved me its cost many times in two summers, and added to the crops raised by the deep tillage it gives. It has three teeth, which look like iron duck's-feet, at the bottom of three legs about fifteen inches long. It seldom clogs and runs deep and through the ground, leaving it very light, and effectually disturbing the piper roots, a good portion of which it brings to the surface. I can unsolicited say, that this implement cannot be used and piper grass flourish on the same piece of land, the same summer. It is the only practical approach to the "piper" aforesaid, with which I am acquainted.

I suggest then, for piper grass lands intended for tillage—to plow deep at the last moment—plant always late—manure broadcast liberally, and in the hill moderately—and, after perhaps once plowing between the corn, comb the land with the cultivator to which I have alluded.

Piper grass around fruit trees may be kept down in this way. Take some old hay, or litter of any kind, and cover the ground under the limbs. Lay sticks upon it—boards are better—to keep it from blowing away. This is everything cheaper than the digging necessary to keep the trees in order where the ground is exposed. The litter should all be removed in the fall to prevent the mice establishing very pleasant winter quarters. B.

Concord, Mass., March 18, 1852.

For the New England Farmer.

RUMINATING ANIMALS.

Mr. Editor:—I send you some remarks upon ruminating animals, by an aged farmer of Worcester County. The character, long experience and accurate observation of the writer of these remarks, entitle whatever he may say upon the structure and habits of animals, or the culture of the soil, to respectful consideration; and such consideration will often prove an advantage to the farmer.

Will you please to insert in your paper, these remarks, and any others which may follow them at a future time and be worthy of notice, and oblige, Yours respectfully,

A Constant Reader of the Farmer.

Medfield, Nov. 24, 1854.

"Some years ago, I saw in print this assertion: —'all ruminating animals bring up and remasticate all their food, and when it is swallowed, it goes directly into the *third stomach*.' To this assertion there are several objections. There can be no such thing as bringing up and remasticating their food by these animals. Examine the paunch, or, in modern expression, the first stomach, and you will find there a mixed mass, such as no animal would have in its mouth if it could be avoided, and it cannot be separated. Besides, if the assertion were true, the animal must keep his jaws in motion all the time. This is never seen to be done. Feed a pair of oxen in the morning until they are full; put them to work and keep them steadily working, and it will be found that they have chewed the cud but a very small part of the time. Then what has become of their breakfast? It remains in the animal, undergoing the operation of digestion.

Again, it is said, food, when remasticated and swallowed, 'goes directly into the *third stomach*.' This is impossible, because there is but one passage from the throat to the stomach, and to go directly into the third stomach, it would need another passage. I presume no such passage has ever been discovered; and no man, who has examined the inside of an animal, could ever have come to such a conclusion. The assertion betrays the ignorance of its author."

THE ILLUSTRATED ANNUAL,

Register of Rural Affairs and Cultivator Almanac for 1855.

This is the title of an Annual, published at Albany, N. Y., by Luther Tucker, Esq., Editor of the *Cultivator* and *Country Gentleman*. A part of the title-page states that the work contains brief and practical suggestions for the consideration of the farmer and horticulturist, and embellished with *one hundred and twenty engravings*, including houses, farm buildings, implements, domestic animals, fruits, flowers, &c. This book is one of convenience, and will prove of practical utility to any farmer. Price 50 cents.

SHEEP AND WOOL.

The annexed table, showing the number of sheep and pounds of wool produced in each of the States and Territories of the Union, according to the Census of 1850, has been published in many of the papers. We have added, in another column at the right hand, the average yield of a sheep in each State, in pounds and hundredths:

States.	Sheep.	Lbs. Wool.	Av.
Maine	440,943	1,362,986	3,09
New Hampshire	384,656	1,108,476	2,88
Vermont	919,992	3,410,993	3,70
Massachusetts	188,651	585,136	3,10
Rhode Island	44,296	129,692	2,92
Connecticut	174,181	497,454	2,85
New York	3,454,241	10,070,301	2,91
New Jersey	160,488	375,396	2,33
Pennsylvania	1,822,357	4,481,570	2,45
Delaware	27,503	57,768	2,10
Maryland	177,902	480,226	2,69
District of Columbia	150	525	2,82
Virginia	1,311,004	2,860,765	2,18
North Carolina	595,249	970,738	1,63
South Carolina	281,754	487,223	1,76
Georgia	560,435	990,019	1,76
Florida	23,311	23,247	0,99
Alabama	371,800	657,118	1,76
Mississippi	304,929	559,619	1,83
Louisiana	110,333	109,897	0,99
Texas	90,096	131,374	1,45
Arkansas	91,256	182,595	2,00
Tennessee	811,587	1,364,378	1,68
Kentucky	1,070,303	2,283,685	2,13
Ohio	3,937,086	10,111,288	2,56
Michigan	746,435	2,043,283	2,73
Indiana	1,122,493	2,610.287	2,32
Illinois	894,043	2,150,113	2,53
Missouri	756,309	1,615,860	2,28
Iowa	149,960	373,898	2,49
Wisconsin	124,892	253,963	1,03
California	17,574	5,520	0,31
Minnesota Territory	80	85	1,06
Oregon Territory	15,382	29,686	1,27
Utah Territory	3,262	9,222	2,82
New Mexico	377,271	32,901	0,08
	21,571,306	52,417,287	2,42

It appears that the average is higher, by six-tenths of a pound, in Vermont, than in any other State. Massachusetts comes next, and then Maine. These are the only States where it exceeds three pounds. In New Mexico and California, probably, the sheep are raised for mutton and poultry, and few of them are sheared; for though we find a very regular diminution in the weight of fleeces as we proceed southward, it is not credible that fleeces actually sheared should average only about five ounces in California, and only about an ounce and a quarter in New Mexico.

The weight of fleeces in Vermont is not owing wholly to the latitude or temperature; for if it were, New Hampshire and Maine ought to yield heavier fleeces still. It is doubtless, in part, caused by the quality of the pasturage, air and water of the Green Mountain range; an advantage in which Massachusetts partakes. Another, and a principle cause is, the superiority of the breeds raised there. Almost all the sheep there are descended from breeds carefully selected from the best flocks in Spain; and it has been long since ascertained that, with decent treatment, they do not deteriorate in Vermont. Not improbably, most parts of the Allegbany range may be found nearly or quite as well adapted to the same breeds.

The fleeces in Vermont are very nearly 20 per cent. heavier than those in any other State, and 52 per cent. heavier than the average of the whole United States. The profit of wool-growing, compared with lighter fleeces of equal fineness, is about in the same proportion; for the rearing and support of a poor sheep is as costly as of a good one. But besides this, the fleeces are much finer than the average of the whole country, and bring a higher price per pound. It is plain, therefore, why the Vermont farmers go into the business so much more generally and extensively than those of any other State. It is plain, too, what farmers of other States must do, if they would reap the same profits from this business.

There are towns in New Hampshire, where sheep of the same breeds yield the same profits; and so in some other States. It is probable, however, that in this staple the Northern States will always retain some advantage over the Southern, and the mountains over the plains.—*Traveller.*

For the New England Farmer.

A MEDLEY.

MR. EDITOR:—I do not often turn aside to notice articles by correspondents for your paper, believing that it is better, in most cases, to let every writer have his "say" in his own way. But in looking over the article of "A Reader," in the *Farmer* of November 18th, I think that some "ideas" offered on the "articles," or some of them, need a little explanation. On the article of "Some Wants wanted by Farmers," he says, "A pretty good article on a capital subject. Want of means, want of knowledge, want of interest, love of business is discussed. To raise the 'means,' a mortgage is suggested. Mortgages—I have learned by experience to shudder at the mention of that word. How they sweep the board to pay the 'interest annually,' and still hang over the old homestead generation after generation—a smothering 'nightmare' on enterprise, ambition and hope." Now what I said in a former article on this point, in substance, was this. "When a young farmer has just started on a new place, instead of laying out all his capital in land, let him save part of it to lay out in farm buildings and other improvements, of course owning less land, and having more ready money to improve what he has got. But, as is now often the case in New England, when the farmer occupies the lands that his father did before him, if ready capital is wanted, and it cannot readily be obtained, put a mortgage on a few acres of land, and raise the money in that way. For it is better to pay interest money for a few years, than to go without the means to invest in farming improvements," &c. Of course, it will be understood that this raising money by "mortgage," is only to be done in extreme cases of necessity. If the farmer has a surplus of land, and can "sell" a few acres, then do so, by all means, and raise the money in that way. But then, as is more often the case with poor farms, where every farmer wants to "sell" and none wish to buy, the case becomes almost a "desperate" one. Then, I say, put a mortgage on a few acres at once, (that is if the farm is not already covered with mortgages for old debts,) and raise the means for future improvements. I think that "A Reader" on mortgages makes an uncommon great "bugbear" out of very small materials, so, in reality, no one need be scared by it.

I have both *seen* mortgages, lived by them, lived with them, and lived under them, and never have yet had a turn of the "nightmare," and do not intend to hereafter. Of course, every farmer can understand the difference between having ready money and not having it; and I presume that "A Reader," with the rest of us, would understand the "difference" between having a few acres of our land mortgaged for money borrowed, instead of having a mortgage of a few acres in our pockets; it would make all the "difference" in the world with me. What I meant to show by the mortgage plan was, that where the farmer had bought a worn-out farm, and money was wanted and could not be obtained readily by a "sale" alone, the mortgage plan must be resorted to. The farmer must see that he cannot afford to let his land lie unimproved, and that money should be had; there should be no *if* nor *and* about it; for where there is a will to do there can be a way provided. If this be the case, then I am, for one, ready to stand and abide the issue.

"Improving soils by shade!" On this article "A Reader" says:—"On this theory, cellar bottoms ought to become rich, and apple tree roots in grass land ought to grow all the better for enjoying a shaded soil. Land covered for four years with brush two feet deep, especially such as would decay in half that time, or even land on which flax is spread merely to *rot*, might be improved thereby from the deposit of vegetable matter, and the disengagement of gases consequent upon even partial decomposition, without giving any credit at all to 'shade.' Though I have little faith that shade will ever be lugged up and sold at 'fifty dollars a ton' as a fertilizer," &c. Very well: now I ask "A Reader," with the readers of the *Farmer*, to turn to the weekly *Farmer* of Sept. 30, or the monthly *Farmer* for November 2, and give my article a fair reading on "Shade," read your own "comments," and then say if you think it a just and fair "criticism." What I meant to show was, that "waste lands" could be improved in the shortest manner by growing trees, and that there was a principle involved by growing trees, which rendered the soil more or less productive. Has "A Reader" proved, or attempted to prove, any thing to the contrary? He has simply glided over it by saying, if shade improves soils, then "cellar bottoms" ought to grow rich, and that land that was covered with brush two feet deep for three or four years, might be improved by the partial decomposition of the brush and the retention of gases, giving the "shade theory" the go by, which is all very well.

What I stated in my article on "shade," &c., was, in substance, that a pile of rails or boards, laying upon the ground for a year or two, the soil under the pile would be greatly improved by it. I do not stop to say whether this is done by decomposition, gases, or anti-gases; I only say that such is the fact, as every observing farmer knows. Has "A Reader" offered, or proved any thing to the contrary? My own idea is, that the greatest amount of improvement to the soil under a pile of brush, boards, or rails, comes from protection to the soil from hot suns and washing rains. I may, however, be all wrong in this, or I again may be right.

A word or two more and I am done. As "A Reader" has (he does not see fit to give us his name,) taken the responsible position of "commentator," we suggest that he would give enough of any article commented on, to enable the general reader to understand the drift of the argument on both sides of the question. In the second place, I would give my own ideas in a plain, straightforward way, but never mind what others may say. I much prefer to have your own "ideas," independent of other people's, on this point, after having made them stand by and abide the issue. But to take a writer's article, pick one sentence here and ridicule another idea there, is not just the fair thing, for in that case any writer's ideas might be made to appear "ridiculous," although there may be no such intention on the part of the critic. Yours truly, L. DURAND.

Derby, Ct., Nov., 1854.

CANKER WORMS.

A good opportunity is now presented, in our immediate vicinity, of removing any doubts which may still be entertained as to the habits of the canker worm, that most destructive of all the insects which infest our orchards and shade trees. The manner in which they possess themselves of what they devour with such voracious certainty, and the efficacy of the process of preventing their ravages by tarring the trunks of the trees, may be clearly seen in some of the orchards in Brookline, where the work is now going on. Our attention was called, a few mornings ago, to a scene of this kind, which almost beggars description. The ground around the trunks of the trees, within a circle of two or three feet in diameter, was literally covered with the insects which had fallen in a vain struggle to overcome the tarred barrier by which the trees were surrounded. Millions of the spoilers were writhing in the agonies of despair and death. The mass of the invading army were wingless females, who can only ascend by creeping up the trunk. Here and there a flying male was caught in the meshes set for his more helpless companions. The trees of this orchard, and indeed of a wide belt of country running through Cambridge and Brookline, including many noble elms and other shade trees, were last summer and the summer previous, completely stripped of their foliage and fruit by these greedy worms, and reduced to withered shreds, looking as if they had been scorched by fire.

These destructive insects have been fully described, and the remedies against their ravages pointed out by Prof. Peck, in the papers of the Massachusetts Agricultural Society, and by Dr. Harris, in a treatise on insects injurious to vegetation, published by order of our Legislature. Our farmers, however, either from faithlessness in the prescribed remedies, or shrinking from the laborious care and watchfulness involved in the application of them, have hitherto very much neglected what they must now be satisfied would have been a wise and perhaps wholly effectual precaution. A single orchard in this vicinity, which in good seasons has produced from a thousand to fifteen hundred barrels of the best apples, has for two or three years past been reduced, by these merciless marauders, to a perfectly barren wilderness.

The canker-worms complete their devastation about the middle of June, when they descend and burrow in the earth to the depth of from three to six inches, and undergo their transformation into chrysalids. It has been generally supposed that they come out of the ground only in the spring; but it is now known that they begin to make their appearance in the autumn; and in mild winters they continue to emerge from their cells during every month from October to March. The occurrence of mild weather after a severe frost, like that which has just been experienced, stimulates some of them to burst their chrysalis skins and come forth to commence their instinctive preparations for another summer's campaign. They come out of the ground chiefly in the night. The males, it is said, are more abundant in the spring. The sluggish females make their way to the nearest tree, followed by the winged and active males, who flutter about and accompany them in their ascent, during which the insects pair. Soon after this the females lay their eggs upon the branches of the trees, placing them on their ends, close together in rows, forming clusters perhaps of a hundred eggs, which is the number usually laid by each female. The eggs are glued to each other and to the bark by a sort of varnish, which is impervious to water. Having thus provided for a succession of their devastating reign, they languish and die. The eggs are hatched in May, about the time that the leaves of the apple tree begin to start from the bud, and the worms gather upon the tender leaves and live and grow upon the growing foliage. They leave off eating when about four weeks old, by which time they have generally made clean work of the luxurious feast which nature, through the farmer's neglect, has provided for them.

The methods for preventing the ravages of the canker-worm, which have been tried and found more or less efficacious, are: to apply tar or oil around the body of the tree, either directly upon the bark or over a belt of clay mortar, or on a strip of canvass or strong paper; to nail boards together around the base of the tree, smearing them out-side with tar: to place circular troughs of tin around the tree, filled with tar or fish oil, or a belt of cloth smeared with melted India rubber, &c. Either of these remedies is attended with considerable trouble, for the tar or whatever is applied to arrest the progress of the insects, must be renewed and kept fresh as long as they continue to rise. Sprinkling the trees to destroy the worms when first hatched, has been practised with some success; but this method is troublesome, expensive, and uncertain. It has also been recommended to dig around the trees after the worms have descended to the ground, and remove the soil. But the application of tar is probably the most economical and efficacious mode of waging war upon this annoying enemy.—*Traveller.*

For the New England Farmer.

A TWO-ACRE FARM.

Mr. Editor:—The article recently in the *Farmer*, giving an account of a "one acre farm," has led me to think I might possibly make a statement of facts that would be valuable, and I forward the same to you, hoping you will use it just as it deserves.

Nine years ago last spring I came into possession of a two-acre farm, and at that time it was barely possible to get one ton of hay from the whole of it, such was the state of cultivation it was in. It was all in mowing at the time, except one-eighth of an acre that I sowed oats on, and they were so small that a good stout grasshopper could eat the heads off by standing tiptoe. Circumstances prevented me from making much improvement on it until 1849 or '50, and now for the result of the past dry season:

2½ tons hay, at $8 per ton	20,00
12 bushels corn, at 80 cents per bush	9,60
Corn Fodder,	1,00
2 loads pumpkins	1,00
21 bush. potatoes, 30c "	6,30
2 bush. beans, 9½c "	3,00
38 bush. carrots, 30c "	11,40
32 bush. turnips, 20c "	6,40
10 bush. graft apples, 50c "	5,00
Garden sauce	5,00
Growth of 140 standard apple, plum, cherry and pear trees, 10c each,	14,00
Growth 250 nursery trees, 2d year, 5c each	12,50
" 1100 " " 1st year, 3c each	33,00
" 1000 seedlings, ½c each	5,00
Total	133,20

Perhaps some may think it is impossible to have so much on so small a surface. I would just say that my beans and carrots grew amongst the nursery trees, and the most of the turnips amongst the potatoes. On one small patch I raised a good crop of green peas, potatoes and turnips; the peas were planted in the hills with the potatoes, and the turnips set both ways between the hills, getting three good crops on the same land in the same season, and neither crop appeared to injure the other—at least they all did well.

Now if this will stimulate any other two-acre farmer to do the like out of nothing, I have my reward. Truly yours, H.

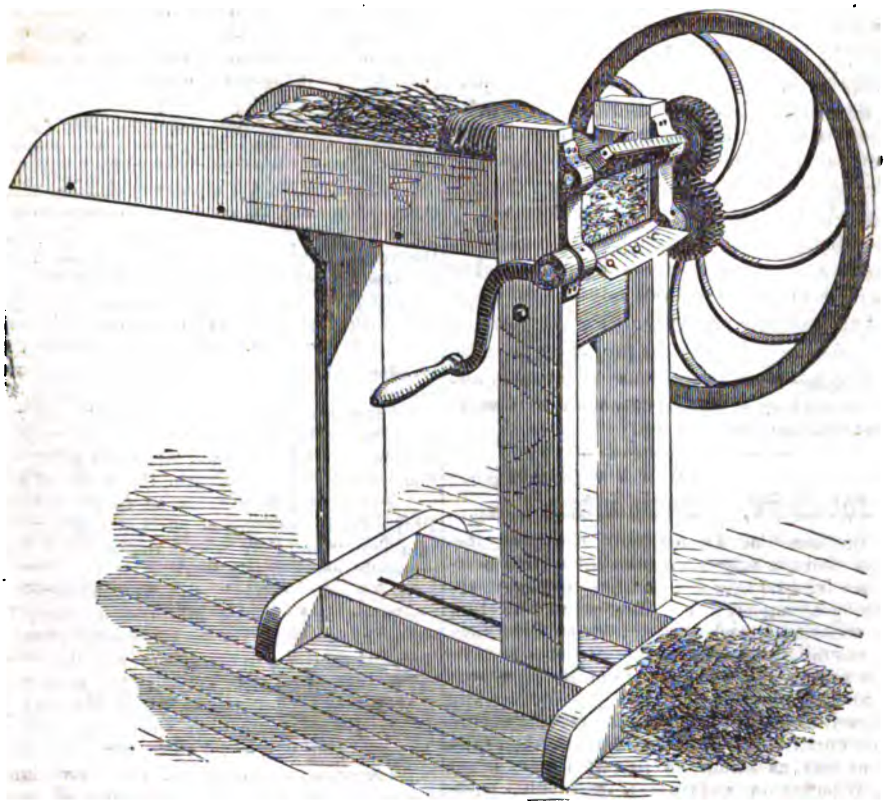
Nov. 13, 1854.

Wintering Cabbage Plants.—Any method simple and inexpensive, for preserving of autumn sown cabbage plants through the winter, is a valuable consideration. We know of none better adopted for the great bulk of people, than the following, practiced to a considerable extent by market gardeners, and in dry, sandy or upland soil, with good success.

Towards the end of October, prepare some rich well-dug ground; drew some deep drills eighteen inches apart, and plant the cabbage one foot apart in these, on the sunny side of the drills, so that the plants may have all the benefit of the sun in the fall before severe frost, and in early spring. When the frost sets in fairly, place some straw, or other light material crossways of the rows, which will effectually keep the sun's rays off during winter, which is the great point to be attended to. At the approach of spring, remove the covering, and as the plants grow, draw a little of the soil to their stems.

If they stand the winter well, they will be in advance of those planted in the spring. The strongest of the plants from the sowing made last month, should be selected, while those weaker will do to winter as recommended in a previous paper.—E. S., *in Country Gent.*

Deadening Timber.—When the bark slips freely in June, July or August, it is the best time to girdle trees. Cut the small growth three feet above the ground; the roots do not sprout, and the stumps are more easily removed.



GALE'S STRAW CUTTER.

The improvements in agricultural implements—although very great within the last ten or fifteen years—will not exclude still further changes. The inventive genius of our people will not be idle, so long as the agricultural interest demands more help from the inventor and the mechanic. There are implements still wanted, which would not only save a vast amount of human toil, but pay thousands of times over, in the saving of seeds, or in the aggregate of crops.

Among the recent improvements on a valuable machine, which has been many years in use, is one represented in the cut at the head of this article. In order to test its capabilities, we have used it with all sorts of fodder usually found in the barn of the farmer,—hay, straw, corn stalks and the butts and husks,—and with them all it performs the desired work with great rapidity and ease to the person using it. Combined with these good qualities, it is so simple in its arrangement and construction that the farmer himself will be able in most cases to repair any injury either by accident or the natural wear by use.

The machine is for sale at different prices, according to size, at the agricultural warehouse of Nourse & Co., 9 & 13 Commercial Street, Boston.

We again urge upon our friends, those who have but a single horse or cow to winter, the economy of cutting the fodder which they are to consume. Hay is worth $22 to $24 per ton in the cities, and from $16 to $20 in the country towns, and the crop may be made vastly more serviceable by being cut.

The engraving, and the following description, will give the reader a pretty good idea of the construction of the machine.

On the 12th day of September last, a patent was granted to Mr. Warren Gale, late of Troy, New York, for the improvement in straw cutters represented in the annexed engraving. The nature of the invention relates to the knife (or knives) of the cutting cylinder, so that it shall cut against a flange (or flanges) on the opposite cylinder. The frame of the machine is like that of common straw cutters; the shaft of the cutting cylinder is driven by a crank handle, and has a cog wheel on it, gearing into another above, giving motion to the cylinder against which the knife cuts the straw. The cutter is attached to a flange by setting screws passing through slots to make it adjustable. The flange projection on the upper cylinder, is provided with a piece of raw hide, against which the knife cuts, so as to protect the edge of the latter. Tho raw-hide (or piece of leather) is secured to the flange by set screws, and it can be adjusted, or forced down towards the knife, by a screw passing down through the cylinder; a slot is therefore cut in the raw-hide to allow the fastening screws to pass through, while its upper end is pressed by the top screw. The knife in this machine requires only to be adjusted to cut against its opposing projection, or rotating table. As the knife and the projecting piece rotate, they grasp the straw, draw it forward, and cut it through by a pincing cut, when they come opposite one another.

For the New England Farmer.

A JOURNEY, CANKER-WORMS, &c.

In the month of August, 1854, I made an excursion through some of our principal cities to see some friends, as well as wishing to benefit my health by a journey. I made some stay at New York, enjoying the fine scenery in its suburbs more than the din of the city, or the officiousness of its greedy cab-drivers. Passing from N. Y., I went into New Jersey, where many important events of the Revolution took place. New Jersey is renowned for her unparalleled sufferings during the Revolution, as well as being the seat of battles where Gen. Washington revived the desponding hopes of his countrymen by capturing a part of the British army at Trenton. Riding through New Jersey and some of its principal cities, reminded me of the by-gone days of Washington's army, with their bleeding feet, capturing the Hessians. This State had its share of the drought, it being at its height at the time I passed through it,—vegetation seemed in a suffering condition, the corn would probably fall short of a full crop. I have an idea that, in this State and Pennsylvania, more corn could be raised upon the acre by substituting a variety which would ear nearer to the ground; the large butt end of the stock from the ground to where the ear forms, some four or more feet, exhausts the land to little profit. Were I a Pennsylvanian, I would select some large eared northern corn that eared nigher the ground, the King Philip variety, for instance, which has produced 100 bushels to the acre, and it would ripen in season on their rich land to give the farmer an opportunity to raise a second crop, on the same land, of turnips, or something else which would grow quick. It strikes me that the stock and the ear of the Virginia corn are entirely out of proportion to be profitable. I have no doubt that our northern corn looks diminutive to a Jersey or Pennsylvania farmer, but still their corn stocks which make such a gigantic appearance may gratify the eye more than enrich the raiser; a kind of corn which would produce larger ears in proportion to the stocks would be an object worthy of consideration and trial.

Passing the Delaware at Trenton into Pennsylvania, all the way to Philadelphia, nature and art seemed to have combined to display to the traveller a view, as he went along, of one of the landscape sceneries which would convert melancholy into enthusiasm. The little groves, gardens, and shade trees, at that season, during the hottest of our summer weather, appeared like the elysian fields of the poets; no aspect could be better suited to the weather; they appeared as though they had been swept and garnished. Copes' garden, with its five hundred varieties of the cactus, attracted numerous visitors, many of them going away in wonder at the ingenuity, expense of money and labor bestowed upon it, for the gratification of fancy and to please the eye. If New England farmers had set out shade trees twenty years ago to ornament their door yards, side-walks, and streets, their property at the present day would be estimated at nearly double its present value. It is surprising to see the influence such ornamental and refreshing shade trees have upon the man of property and refined taste, who wishes to purchase a farm, or country residence. It is never too late to do good, and if farmers would now go into the work of setting out ornamental shade trees as in the suburbs of Philadelphia, or in some parts of our own State, in a short time they would realize ten dollars or more for every day's work.

In the neighborhood, and to what extent from Philadelphia I was not informed, a worm, in its ravages resembling the canker-worm, infested and denuded the trees in the groves, and the ornamental trees in the streets much in the same manner that the canker-worms did here in May and June, 1853. They commenced their depredations in August, and continued their ravages to the 7th September, when I left, and how much longer I have not been informed. But, after all, there is no place without its disadvantages, though there may be, without advantages. This Eden about Philadelphia lacks the fruit trees and fruit, the uncultivated hills covered with forests, the good cold water, and perhaps the exhilerant air, which we have about Boston. Their land is too rich and valuable to appropriate to forests near the city, and therefore they are destitute of that rude, enchanting wildness, which is so pleasing to a lover of natural scenery. Excess of the beautiful is cloying after a while, and even shrub oaks are pleasing for variety's sake. On my return to Boston, the contrast was striking; it seemed like a "city on a hill," the buildings and streets, how airy and clean, and every man in the streets apparently a gentleman.

SILAS BROWN.

Wilmington, November, 1854.

TO PREVENT SMUT IN WHEAT.—Our *neighbor* of the *California Farmer* says he received the recipe below from a practical farmer who had used it for several years, and always found it effectual.

RECEIPT FOR SAVING WHEAT FROM SMUT.

Take one pound of blue stone, dissolve it in water, and sprinkle it over four bushels of wheat the day before you sow it.

I never knew it to fail.

OSCAR P. V. KALLENBACH.

LONDON VEGETABLE MARKETS.

We have received from our attentive correspondent at Liverpool, a copy of the *London Journal*, in which we find the following table, giving an account of the kinds and quantities of vegetables sold at several of the markets of that city. The article was prepared for the *Morning Chronicle*, and we presume gives the amount sold for a year, although it is not so stated in the returns.

COVENT GARDEN MARKET, all of home produce:

Apples—360,000 bushels.
Pears—280,000 do.
Cherries—90,000 do.
Plums—280,000 half-sieves, or 93,000 bushels; three half-sieves go to a bushel.
Gooseberries—140,000 bushels.
Currants—Red, 70,000 sieves; white, 3800; black, 45,000, or 178,200 half-sieves; being the produce of 1,069,200 bushes, as 6 bushes on an average fill a sieve.
Strawberries—58.000 half-sieves, or 638,000 pottles; 11 pottles go to a half-sieve.
Raspberries—30,000 sieves, or 22,500 bushels.
Walnuts—20,000 baskets, each 1¼ bushels, or 25,000 bushels.
Cabbages—16,000 loads, 150 to 200 dozen each, or 33,600,000 cabbages.
Turnips—10,009 loads, 150 dozen each, or 18,800,000 turnips.
Carrots—5,000 loads, 200 dozen each, or 12,000,000 carrots.
Onions—500,000 bushels.
Brocoli—including cauliflowers—1000 loads, 150 dozen each, or 1,800,000 heads.
Peas—135,000 sacks. A sack is two bushels.
Beans—50,000 do.
Celery—1,500,000 rolls of 12 each, or 18,000,000 heads of celery.
Asparagus—400,000 bundles of 150 each, or 30,600,600 buds.
Endive—150,000 scores.
French Beans—140,000 bushels.
Potatoes—83,000 tons.
Watercresses—21,060 hampers or 26,325 cwt., each hamper being 1¼ cwt.

BOROUGH MARKET. In all the returns "cauliflowers" are included under the head "brocoli."

Cabbages—8000 loads, 200 dozen to a load, or 19,200,000 cabbages.
Turnips—2000 loads, of 200 dozen each, or 4,800,000 turnips.
Brocoli—1576 loads, of 200 dozen each, or 3,782,400 heads of brocoli.
Carrots—442 loads, 300 dozen each, or 1,571,200 carrots.
Potatoes—36,000 tons.
Peas—25,000 sacks.
Beans—10,000 sacks.
Currants—30,000 bushels.
Cherries—45,000 bushels.
Strawberries—10,000 bushels.
Gooseberries—35,000 sieves.
Apples—25,000 bushels.
Pears—10,000 bushels.

SPITALFIELDS MARKET, all home grown:

Potatoes—55,000 tons.
Peas—50,000 sacks.
Beans—5000 sacks.
Cabbages—5000 loads, 200 dozen to a load, or 12,000,000 cabbages.
Turnips—2000 loads, 200 dozen to a load, or 4,800,000 turnips.
Carrots—1000 loads, 200 dozen to a load, or 2,400,000 carrots.
Brocoli—1200 loads, 200 dozen to a load, or 2,880,200 bushels.
Cherries—15,000 bushels.
Apples—250,000 bushels.
Pears—83,000 bushels.
Plums—45,000 bushels.
Gooseberries—91,500 bushels.
Currants—45,000 bushels.
Strawberries—12,000 bushels.
Raspberries—2500 bushels.

It is a curious fact connected with this market, that whatever produce is sent to it from Enfield, in Middlesex, is subject to neither turnpike nor market tolls; an exemption granted to Enfield, because, during the Plague, in 1665, vegetables and fruit were sent almost exclusively from thence—of course at the risk of the lives of all who ventured into the pest-stricken city.

FARRINGTON MARKET:

Potatoes—14,000 tons.
Peas—7,000 sacks.
Beans—1200 sacks.
French Beans and Scarlet Runners—3,000 bushels.
Cabbages—3500 loads of 200 dozen each, or 8,400,000 cabbages.
Brocoli—1300 loads, or 5,320,000 heads.
Turnips and Carrots—700 loads, averaging 50 dozens a load, or 504,000 turnips and carrots.
Onions—6,000 bushels.
Gooseberries—12,000 bushels.
Currants—5,000 bushels.
Cherries—12,000 bushels.
Plums—3,000 bushels.
Apples—35,000 bushels.
Pears—20,000 bushels.
Strawberries—450 bushels.
Watercresses—46,800 hampers, or 58,500 cwt.
There are also 60,000 flower roots sold in a year.

AGRICULTURE IN NORTH CAROLINA.

We have before us an address delivered by the Hon. KENNETH RAYNER, of Hertford, before the North Carolina State Agricultural Society, in October last. Mr. Rayner was for several years a member of Congress from that State, and was an active politician. We are glad to find that he has turned his attention to the development of the agricultural resources of the "Old North State," and hope that through the influence of the State Society, thousands of the acres of sand and pine barrens within her borders may be brought into a state of beauty and fertility. Below are extracts from the Address, all we have room for at present.

EFFECTS OF SCIENTIFIC DEVELOPMENT.

It is our good fortune to live in an age of wonderful invention, of startling scientific development. It is emphatically the age of rapid progressive improvement. The striking peculiarity of the knowledge of the age is its direction and application to useful and practical ends; in ministering to the necessities, the comforts and luxuries of man. In fact it is the demand for that species of knowledge, that is whetting invention, stimulating ingenuity, and taxing intellect for its mightiest achievements. Geology, mineralogy, chemistry, botany, zoology, and natural philosophy, are not now cultivated, as the mere avocations of intellectual research, or to satisfy the philosopher's abstract thirst for knowledge; but as the instruments by which man is to subdue the material world to his control, and apply the immutable laws of nature to the satisfying his wants. A minute knowledge and classification of primeval rocks, from the disintegration of which the soil is composed—the deductions arrived at from an acquaintance with the various strata and fossil deposites of the crust of the earth—an examination of the constituent elements of all material nature, their relations, affinities and repulsions for each other—an acquaintance with the structure and vegetable physiology of plants and trees and flowers; and the principle of their growth, decay and reproduction—an understanding of the peculiarities, habits and capacities of animals, whether of the higher type or of crawling insects—the study of those laws of motion, and physical forces, by which Infinite wisdom governs the boundless universe—all these branches of knowledge are pursued with a vigor and tenacity unknown to the votary of ancient learning, and to answer the purposes of practical utility. They are made to serve the purposes, and direct the course of the miner in his search for mineral treasures in the bowels of the earth; and in ransacking the coal-fields which nature has laid aside in her great store-house for the use of man, after the forests have fallen before a redundant population. They afford data by which the physician is enabled to minister to human suffering; by which the manufacturer imparts the tints of beauty to his fabrics; by which the cutler tempers the edge of the implements of labor. They direct the engineer as he drives his car careering over the land—or propels his ship against wind and current.

INFLUENCE OF RAILROADS ON AGRICULTURE.

One of the most striking manifestations of the industrial enterprise of the age is in the struggle man is now engaged in, with the obstacles presented by nature—in opening channels of communication, in laying down the pathways of trade and commerce, in pioneering the way for the iron rail and steam-engine. The vast stores of the Incas of Peru dwindle into insignificance compared with the hundreds of millions that have been expended in these monuments of human industry in the United States, in England in France; and their march is onward towards the steppes of Asia. In their construction man has achieved victories over the elements, of which Archimedes never dreamt. It was the boast of Napoleon, that whilst Hannibal had scaled the Alps he had turned them—but the engineer has done more than either of these great conquerors; he has tunnelled them, not for the march of desolating armies, but for the transit of the products of the pursuits of peace—for the conveyance of the traveller in comfort and safety beneath the roaring avalanche above his head. And what are railroads, but the veins and arteries, through which the products of agriculture, either in their crude state, or as fashioned in the workshop, circulate, in seeking the market of commerce? Whilst railroads are dependent upon the products of agriculture, yet the two are inseparably identified in interest. They act and react on each other. It is upon the productions of the field and the workshop that the railroad must rely for the materials of freight, the very means of subsistence—but then again, the construction of the railroad, by the benefits conferred, in contiguity to market, cheapening the cost of transportation, increased convenience in procuring the comforts and luxuries of life, affords a stimulus to the land-owner, to improve his land to its highest capability of production; and as the products of the land are increased, the railroad finds increased employment, and enhanced profits.

CHANGE OF FOOD.

There appears to be, in all animals, a propensity frequently to change their food, the periodical indulgence of which, within reasonable limits, is highly conducive not only to the gratification of the appetite, but to the promotion of health. In our own species, this propensity is strikingly displayed, and the necessity for its gratification is incontestably demonstrated by the fact that individuals confined for any considerable length of time to the same diet, are much more liable to disease and loss of health, than those who indulge in a variety. This is evinced by the extreme prevalence of those fatal maladies attending long voyages, where the seamen are necessarily restricted for months to the same rations. Dogs, cats, and other domesticated animals, confined for an undue period to one sort of food, though it be of a character naturally adapted to their wants, have been known to sicken and die. The only exception to this rule, perhaps, is found in those anomalous cases where the food is of the simplest and most humble kinds; as, for instance, the potatoes of the Irish, and the no less simple aliment of the people under the tropics.

A consideration of this fact is of the greatest consideration to farmers, who, though frequently guided in the treatment of their domestic animals by the most benevolent sympathies, are yet liable to err, and commit involuntary mistakes on nature, purely through a misconception of the necessities imposed by an irreversibie natural law. In feeding cattle of all kinds, it will be found that a variety of food is always better than an unvaried course. The same article falls, by repetition, upon the palate, and a dislike is engendered for food, which, though nutritive and sapid enough in itself, when craved by the appetite, long and compulsory habituation deprived of *all* its natural attractions, and invests with attributes that cause it to be contemplated, even in hunger, with loathing and disgust.

FRENCH GARDEN IMPLEMENTS—STONE—LABOR.

I sometimes wonder that anything grows in France, the tools used in gardening and in agriculture are so uncouth and unhandy. The hoe, an instrument of constant use, has a handle but two feet long, so that the hoer is obliged to bend into the very earth, in order to reach the object of his care. He thus has his back continually horizontal—a position as laborious and painful as it is degrading, for it gives to a man the appearance of a beast of the field, crawling on all fours. The French spade is even worse. The handle is straight, like the American hoe; it is not furnished with a hand-piece at the end, which at home is thought to increase its efficiency twofold. This tool is a monstrous misapplication of strength to labor, and, as might be supposed, performs very small days' work. In fact, the spade and the shovel are both one, whereas they ought to be as distinct as poker and tongs. The rake, an ornamental instrument at best, is furnished with nails in the place of teeth; but as it is often double, being a rake on both sides, it is a tolerably vigorous utensil. The watering-pot, on the other hand, is a superior article. It is constructed on mechanical principles. The two handles—the carrying and the watering handles—form but one handle, passing along the top to the side. The gardener thus slides his hand from the one position to the other, and may hold a watering-pot in each. The wheelbarrow is an ill-built affair, and usually creaks. The mortar used in the construction of stone walls is the best in the world. In two hours it is harder than the stones it cements, and never, at any age, does it crumble to pieces. It is expensive, and even the wealthiest proprietors resort to the following expedient to diminish their consumption of it. At every twenty feet of the wall to be built, a fragment of it—say a portion two feet wide—is made with mortar, the rest is cemented with mud—the commonest mud, made upon the spot, with any earth that happens to be at hand. The whole wall is then faced with mortar, thus assuming a similar appearance in its whole length. The result is a wall that will last for centuries, there being no frosts powerful enough to upheave or disjoint it.

I said the mortar was stronger than the stone. No one who has ever seen French building-stone, in the neighborhood of Paris, can form even a remote idea of what it is. The masons snip it, shape it, edge it, as if each lump were a pine-apple cheese. I have seen the adze penetrate a block as it would have penetrated a ripe watermelon. This quality, which adds to the facility with which it is adapted, is in no way disadvantageous. The stone will bear any weight, and never splits or chips of its own accord. With time its color changes from a rich cream color to a dingy brown, but a scrape every five years restores it. Its softness is in fact as great an advantage as malleability is to a metal; for while it is as easily fashioned as cheese, it is as durable as granite.

I told you that I once hired an old woman to weed a gravel path and strawberry bed. I am happy to state that this venerable creature is now well provided for. She and her good man are engaged as husbandmen upon a neighboring farm. They work twelve hours a day, steadily, and she performs the same labors, and quite as much labor as he. She digs, weeds, plants, "snatches" potatoes, trains grape-vines, mounts drays, ascends ladders, gets into trenches, sinks wells, like the veriest male of them all. I sat the other day upon a hay-cock of her making. She is richly bronzed, and her limbs—which she exposes with an agricultural freedom—are gnarled and knotted to a degree quite unusual with the sex. The two are boarded and lodged by their employer, and the wages they get are proportionately reduced. Still, the smallness of the figure will astonish you as it did me. They earn, together, $180 a year—being thirty cents a day for him, and nineteen cents a day for her. They lay by $100 a year, and when they are too old to work, will be able to keep them out of the poor-house and avoid the hospital, even though saddled with sickness in addition to poverty.—*N. Y. Times.*

PREPARE FOR WINTER.

Winter is at hand, with its storms of sleet and snow, and all necessary preparations for the comfort and thrift of his stock should be made by the farmer. These duties will now nearly monopolize his attention. Every season has for him its appropriate and varying work, and that of winter brings him often among his domestic animals, as their sustenance and shelter is mostly provided by his care and labor. On these subjects we offer a few suggestions.

Considerations of economy as well as humanity should induce attention to the protection and shelter of domestic animals in inclement weather. Less food is required to sustain in thriving condition an animal kept in a comfortable stable, than one not thus sheltered. The vital heat must be kept to a certain point—about 100°—and this is done by the food consumed, which serves as fuel to sustain that temperature. A sheltered position tends to keep up the animal heat, while exposure decreases it, or rather makes more food or fuel requisite to support it. An equable temperature is also more healthy than one continually changing. No animal, however hardy it may be, can be exposed to a winter storm, especially a drenching rain, without injury to its health and condition. The moisture may rapidly evaporate, but every drop of water thus passing off, takes with it a portion of vital heat as it rises.

Comfortable stables and sheds for horses, cattle and sheep—not neglecting the pigs and poultry—are a part of the essential requisites of a good farm. Still they may not always be conveniently provided, and in such cases, one should do his best to prepare a substitute. Sheds may be built of poles, rails or boards, and straw, which will shelter sheep and cattle almost as well as more costly structures—though of course not as conveniently. When built of rails, the walls should be made double and filled in with straw, which may be also used as a thatch; or evergreen boughs answer well this purpose.

It is poor policy to pinch stock in the early part of winter. Let them be kept in good heart, if it can be done, from first to last, and if they must be put on short allowance, let it be at the close of the season. To make the best of the fodder, a straw-cutter in the barn is a prime necessity. Corn stalks cut fine are eagerly consumed by cattle; and clover, and all coarse hay goes much farther when cut, and even the best of hay is increased in value by this preparation. If grain of any kind is fed, it should be ground and mixed with cut straw, first moistened with water. It will be better digested, and consequently less will be required. Apples and roots are of as much value as food for all kinds of farm stock.

Much may be done towards increasing the quality and quantity of the manure heaps. The stables should be kept well littered, for the comfort and health of their occupants, and the pig-pen be supplied with the raw material for the young porkers to manufacture. Muck, leaves from the woods, coarse hay and such absorbent materials will add much to the value of this "essential to productive farming"—manure. Enough of these or of straw should be mixed with the horse dung to prevent its heating, and to take up the liquid portion of the same. No farmer who studies true economy, will suffer any fertilizer to go to waste which his reasonable care can save.

Water as well as food is necessary. This should be brought into the yard, if it may be, so that every animal may have the supply his wants demand. It is an excellent plan to have proper cisterns constructed to take the water from the barn roof, where springs are not available, and in this way a full supply of the best water may by secured.—*Wool Grower.*

New Food for Sheep.—Whilst I was at Geneva, I observed every one collecting carefully the fruit of the horse-chestnut, and on inquiry I learnt that the butchers and holders of grazing-stock bought it readily at a certain price per bushel. I inquired of my butcher, and he told me it was given to those sheep in particular that were fattening. The horse-chesnuts were well crushed; something in the way, so I understood, that apples are, previous to cider being made. They are crushed or cut up in a machine kept solely in Switzerland for that purpose; then about two pounds' weight is given to each sheep morning and evening. It must be portioned out to sheep, as too much would disagree with them, being of a very heating nature. The butcher told me that it gave an excellent rich flavor to the meat. The Geneva mutton is noted for being as highly flavored as any in England or Wales.—*E. D., in Agricultural Gazette.*

WINTER MANAGEMENT OF SHEEP.

In wet weather it is of great advantage to be able to fodder under shelter. I have abandoned the practice of salting my hay, except when compelled, by stress of weather, to house it before it is thoroughly cured. My sheep are salted about once a week the year round, and instead of giving them tar, as recommended by some persons, I occasionally strew the yard with pine boughs, of which they are fond.

I regard the fall management of lambs one of the most important branches of sheep husbandry. Having paid for my experience on this point as well as that of winter shelter, I can speak with confidence. They should be separated from their dams about the first of September, and with a few old sheep, that require nursing, turned to the best pasture. Care should be taken that they are not stinted till removed to winter quarters, when they should have a small allowance of grain or oil-meal in addition to a plentiful supply of good hay. As soon as the pasture begins to fail, the ration of grain should be supplied. By neglecting to provide suitable pasture for a lot of upwards of 100 very superior lambs one season, I lost the greater part of them the ensuing winter. My utmost efforts, after I discovered the error, were of no avail. I gave them a comfortable shed, plenty of litter, good hay, a regular allowance of meal, and free access to water; but they never recovered, and the greater part died before spring.

My bucks and ewes are put together about the first of December. The flock which I keep at my home barn, under my own eye, and from which I raise bucks for the supply of my own, and many of my neighbors' flock, is managed in this way. The ewes, in lots of 20 to 35, are placed in separate pens, and a select buck is turned into each pen, where they are kept together 15 or 20 days. The ewes in each pen are marked with a letter in tar and lampblack, to indicate what buck they were served by. At shearing time, the best buck lambs are selected, and receive a mark to denote their origin.

In my judgment, water is as essential to sheep as it is to any other animal. They will go through the winter on snow instead of water, and so would a man or horse, if compelled by necessity to do so; but either would prefer to have it thawed before using it, rather than perform that office in his bowels.

When my sheep run in large flocks without shelter, they were occasionally affected with the scab, but since I have provided comfortable sheds for them, they have been troubled with no serious disease. This climate is well suited to sheep.—E. KIRBY, *Jeff. Co., N. Y., in Morrell's Shepherd.*

For the New England Farmer.

TALK ABOUT GUANO.

BY HENRY F. FRENCH.

At the annual meeting for the election of officers of the Rockingham Fair, last week, part of the day was devoted to a discussion of the use of Guano and Super-phosphate of Lime. Many farmers in this county have made experiments with both in various ways, and I have been intending, if that *leisure time*, of which we sometimes fondly dream, ever should arrive, to collect the experience of our farmers and publish it for the good of the community. Enough facts might be brought together from what has been done with these fertilizers in this county alone, to afford pretty satisfactory means of conclusion as to the advantages of their use. Before proceeding farther, it may as well be suggested, that I shall not undertake just now to be very decided in the expression of any opinion on the subject, for fear I may not agree with the principal editor. One gentleman, who did not seem to have a realizing sense of the Protean character of editors, said in our meeting, that he heard *Professor* Brown say at the State Fair in New Hampshire, that he had no doubt that the guano used in Mass., the past season, had done the farmers much more hurt than good.

This statement was received with manifest surprise, and inquiries were at once made as to what sort of a *Professor* this could be. Some one suggested that it must be Professor Brown, of Dartmouth College. "No," said our friend, "it was the gentleman who delivered the address at the State Fair." The Editor of the *N. E. Farmer,*" added another. "The Lieutenant Governor elect, who delivered our annual address last year," remarked a third, and then followed the usual shout of laughter, which puts every body in good humor, when the subject of Massachusetts politics is named, since the last election. Now, it may readily be conceived, that a man may be a Know Nothing in politics, and yet know *something* in agricultural affairs! Possibly, it may be true, that guano has injured crops in some localities, more than it has benefited them.*

If so, it must be, because it was improperly applied. The man who put half a pint of salt in each hill for potatoes, concluded that salt, as a fertilizer, is a humbug, and a farmer who should give his colt a peck of corn at once, would probably infer from that single experiment, that corn is poison to colts. Every one who has used guano, has doubtless been informed that it is so powerful, that corn and even potatoes will refuse to vegetate, if the seed be placed in contact with it. Many persons destroyed their seed last season, by placing it over guano, imperfectly covered. If you converse with these persons, you will find most of them will declare, they did cover the guano an inch or two deep, at least, before dropping the seed, and if you pursue the investigation further, you will,in nine cases out of ten, ascertain that the covering was done with *the foot*, and not with a hoe. It is true, that it makes no particular difference how the earth is put upon the guano, provided it be thoroughly done; but where we see men go into the field and actually cover an acre of corn or potatoes with a cowhide boot, instead of a good polished steel hoe, we shall continue to look upon the *kicking* process with suspicion. With the help of my boy Willie, of ten years old, I applied guano to about an acre of corn, at the rate of one ounce to the hill, and covered it about an inch and a half deep, with a hoe, with my own hands, and not one single hill was injured, and the whole was much benefited, while close by, on similar land, part of a neighbor's cornfield to which guano had been applied, looked as one might imagine Sodom and Gomorrah to appear, after the first shower of fire and brimstone. One-half the piece was nearly destroyed, while the other grew very handsomely. I inquired the reason of the difference, and was informed that the first half was carefully covered with a hoe, and the other with the foot.

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* What we said at the meeting at Keene, was, that great losses had occurred in Massachusetts the present year in the use of guano, but not that those losses were greater in the aggregate than the benefits derived from its use,—for of that we had no means of judging; and this loss, we represented as springing from the want of a proper knowledge of its application to the various soils and crops.

For one, I am not yet prepared to admit that guano is not to be used to advantage, by our farmers in New England.

That it will supercede the use of other fertilizers, no sensible farmer will pretend, and no one should neglect to use all the means which Nature has put within his control to increase the quantity of manure on his farm. But, after we have carefully saved everything from the stable and barn and vaults and sinks and swamps and woods, we often have not enough, and sometimes may purchase with profit. Everybody knows something of the labor and expense of hauling and composting stable manure, and the time necessarily consumed in these operations. If we consider, that when we have loaded a ton of manure in our barn cellar, and hauled it out with four oxen, and perhaps laid it in a large pile, and afterwards reloaded it, and dropped it in small heaps, and once more handled it all over in spreading, if we consider that of the whole ton, all but four hundred pounds is *water*, just such as we are deluged with every spring, it does not seem unreasonable that farmers should look carefully for some more concentrated form of fertilizers. My intention now is, to say enough to keep the subject in mind, as still an open one, for while we have not yet experience enough in the use of guano, to satisfy us how it may be used to the best advantage, there can be no doubt that it is a powerful stimulant and fertilizer, when properly applied.

The great question yet remains open, whether at the present prices of guano, and of crops, it can be profitably purchased.

I will now give a statement made by Mr. Rufus Sanborn, of Hampton Falls, at the meeting before named, as I pencilled it down, when he gave it. It may be remarked, by the way, that the Hampton Falls Farmers' Club, of which Mr. Sanborn is a member, has been conducting a course of experiments, with the various fertilizers, which may be of great service, if we can procure them for publication.

Mr. Sanborn's first experiment was with potatoes. He planted them on dry land, on which he had applied sixteen loads of manure and plowed it in. He put one hundred pounds of Peruvian guano into the hills, on half an acre, leaving the rest with no manure except what was plowed in. He dug the potatoes in July, and sold them at an average price of one dollar fifty cents a bushel. He got just twenty-five per cent. more potatoes where the guano was applied, and they were of better size.

His crop was one hundred bushels to the acre. The value of the guano and labor of applying it was three dollars, and the gain by its use about twelve and a half bushels of potatoes which sold for $18,75. On another piece of similar land, he applied swamp mud in the hill, to the whole, and to a part Peruvian guano at the rate of 100 pounds to the acre, which increased the crop one bushel in ten. The crop was understood to be a later crop than the first, and to have been 200 bushels to the acre, so that the 100 lbs. of guano worth three dollars, gave twenty bushels of potatoes worth about sixteen dollars.

Mr. Sanborn applied 100 lbs. to three-quarters of an acre, and plowed it in for *Rye*, leaving a part of the piece with no guano. It was cut by his men in his absence, and not kept separate. The whole crop was twenty bushels to the acre, which he called a small crop. His opinion is, that there was fully double the quantity of straw, and nearly double the quantity of grain on the part where the guano was applied. He applied 200 lbs. to an acre for *Barley*, and increased his crop one-third by the means, as compared with a part of the field not guanoed.

The part on which the guano was used, gave a crop of fifty bushels to the acre, so that he got about twelve and a half bushels of barley, worth as many dollars, for about five dollars worth of guano, to say nothing of the increase of straw.

The barley was raised last year, and the land laid to grass. He says there was this year, no perceptible difference in the crop of grass where the guano was used, and where it was not.

Mr. Sanborn said that he made the common blunder last year of an over dose of guano on his corn. He applied five hundred pounds to an acre in the hill, and burnt up his crop so that he lost half of it. This year, by no means discouraged, he repeated his experiment with corn. He plowed his land with a Michigan plow, sowed on 200 lbs. of Peruvian guano to the acre, plowed it again lightly, say six inches deep, put 100 lbs. in the hill, and 200 lbs. more round the hills, before the second hoeing, and gathered *ninety-eight* bushels of shelled corn to the acre, as measured by his neighbors, and received the first premium of our County Society, for his crop. He has no means of knowing how much the crop was increased by the guano, but stated that he had no doubt it added to it very much.

The foregoing is, perhaps, as much guano as is profitable for our readers, at one dose. There is a good deal going on in the Granite State, in the way of agricultural investigations, and nowhere more than in Hampton Falls. Mr. Sanborn, whose statements are given above, is a reliable man, who labors with his own hands, and whose object is to make his farming profitable. The testimony of one such man who *practices*, is worth that of two mere *professors* of agriculture. As soon as the facts can be collected, I hope to lay before the public further experiments, both in the use of guano, and of super-phosphate of lime, and I pray you not to declare the polls closed on these subjects, till the vote of Rockingham County is received. H. F. F.

Exeter, N. H., Nov. 20, 1854.

For the New England Farmer.

AUTUMN PLOWING.

Mr. Editor:—I am surprised at the remarks of our friend, H. S. Perrin, of Orfordville, N. H., in relation to fall plowing. It appears to me that no farmer, however inexperienced in cultivating the soil of New England, can fail to see that fall or autumn plowing is a benefit to the soil. In the first place, Mr. P. thinks that one-fifth of the manure applied is lost; this I conceive to be an error in which many persons indulge, but I cannot for my life see how the fertilizing qualities of the manure can escape by the simple process of turning under what remains upon the surface, after the crops are harvested. I find that lands plowed in the fall is not so liable to drought as those plowed in the spring. Fall plowing also serves to destroy those insects which deposit their eggs in the ground, and in the spring rise up by thousands and destroy the crops. If Mr. P. will take two acres of land, side by side, plow one in the fall and the other in the spring, equally manure both, I think he will find the result to be in favor of fall plowiing. A. K. P. W.

Quincy, Nov. 20, 1854.

MANURING.

It is a beautifully wise and sublimely grand provision of Providence, that the decomposition and decay of all matter, both animal and vegetable, is so closely connected with reproduction, thus forming a continual transmigration of matter, and verifying practically that great truth in philosophy, that not a particle of matter can be lost, although it exists at different times in different forms. This transformation is going on constantly before our eyes, in the growth and decay of vegetables, trees, &c.; as, for instance, the plant that is growing luxuriantly in genial summer, imbibing nutriment from decomposing materials, will itself, in return, mature, die, decay, decompose, and its elements contribute to the growth of successive vegetation in its vicinity.

These truths involve principles no less important or advantageous to the farmer than the moralist and the philosopher, as it comprehends manuring in all its variety; the only object of manuring being to furnish nourishment to the growing plant, and whatever undergoes decomposition, whether animal, vegetable, or mineral, does that. Every farmer should be aware of the fact, that carbonic acid gas is actually necessary to the health and growth of vegetation, and that whatever furnishes this gas should be applied as manure as far as practicable. With this view of manures, I make it an object, when preparing new ground for cultivation, not to draw off any rotten or decayed wood that can be plowed in, but rather to draw it on land where there is none, believing it to be as good manure as any other, although its effects may not be seen immediately. Every one who has cultivated a farm, must have observed that grain,—Indian corn in particular—will grow much larger than usual near an old fence or a rotten stump, or log, if there are any in the field. Now, it is evident that it is not owing to superior cultivation, that such is the case; but, on the contrary, land is seldom plowed as good close to a fence, or around a stump or a log, as other places; and we are left to the conclusion that it is the nourishment they impart that produces such effects; and when we have arrived at such a conclusion, we cannot fail to see how much better it would be to apply such things as fallen leaves, rotten wood, and all other substances that emit carbonic acid gas during decay, as manure, than to leave them to waste their richness in an uncultivated place.

Ventilation of Stables.—We have sometimes speculated as to which stable is most inimical to the health and comfort of horses, the one with an inch between each plank in the floor, a hole in the door, a clapboard off one side and a broken window in the other with a leaky roof, or a small, tightly built one without any means of ventilation. Unfortunately there are too many of each class in all sections of the country. But the number is, we trust, yearly getting less. See to it, however, you who have had energy enough to build a neat, good, substantial barn, that from lack of judicious ventilation your horses are not as much injured in eyes and lungs from the lack of good air and the constant exhalation of noxious vapors, as they would be in other respects in the tumble-down barn of your neighbor Shiftless.—*Rural New Yorker.*

For the New England Farmer.

MORE ABOUT GUANO.

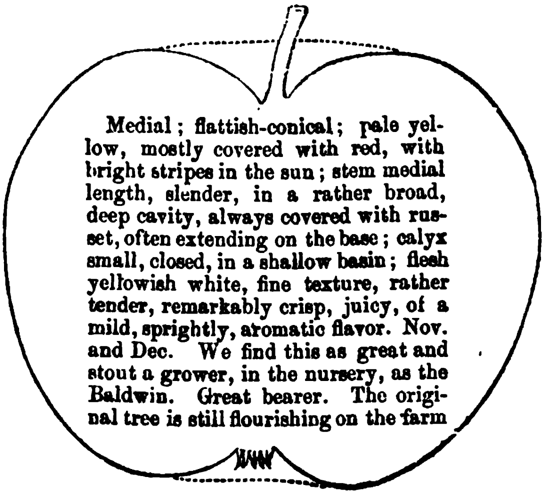
Mr. Brown:—I have perused with much interest your paper of this date, (Dec. 2, 1854,) and particularly the talk of brother F. about *guano*. This is just *the talk* for farmers. Plain facts brought forward in this familiar manner, will be read and remembered, when a formal essay will be passed without notice. I was particularly struck by the fine crop of corn grown by farmer Sanborn, of Hampton Falls—98 bushels of corn, actually *shelled* aud measured, as the product of one acre, is what does not often happen on the farms of New England. I have heard of larger crops, *Plymouth measure*; but when inquired into, there is found some exceptions about the measure. I have seen many fine crops of corn, but never one that yielded better than this Hampton crop. How much of this is to be credited to the *three times plowing the field*, how much to the *manure spread upon the land*, and how much to *the guano*, it may not be easy to distinguish.

I am glad to know that any of our farmers can give a favorable account of the use of *guano*. So far as I have witnessed its use the present season, except where it was applied to grass land in the early part of the season, but little benefit has accrued from it. As at present advised, I should prefer *ashes* at *ninepence* a bushel, to *guano* at $50 per ton, for the growing of grass; and I should prefer ten cords of good stable manure to a ton of guano for the growing of carrots, turnips or onions. I cannot learn that our growers of onions have experienced any benefit whatever from the application of guano to their onion fields. My late worthy friend, Dr. N., thought, two years ago, that it improved his crop; but it will be remembered that he applied ashes to the same land—therefore he could not be certain which medicine wrought the cure. I would not discourage the use of guano, but I am by no means satisfied that it will be found worth using.

Danvers, Dec. 2, 1854.

P.

THE HURBUT APPLE.



Medial; flattish-conical; pale yellow, mostly covered with red, with bright stripes in the sun; stem medial length, slender, in a rather broad, deep cavity, always covered with russet, often extending on the base; calyx small, closed, in a shallow basin; flesh yellowish white, fine texture, rather tender, remarkably crisp, juicy, of a mild, sprightly, aromatic flavor. Nov. and Dec. We find this as great and stout a grower, in the nursery, as the Baldwin. Great bearer. The original tree is still flourishing on the farm of Gen. Leonard Hurlbut, Winchester, Ct. It bore 40 bushels one year, and 20 the next. One of the finest of the season, for the dessert and kitchen.

Mammoth Oxen.—There is now on exhibition near the Fitchburg Depot, Boston, a pair of Oxen said to weigh *ninety hundred pounds!* One of them girts *twelve feet and one inch*, and is *eighteen feet in length*, from the tip of the nose to the end of the tail, and is *six feet and four inches high!* They were raised by Mr. William Paddock, of Hoosick, Renssellaer county, New York, and worked and fattened by Mr. John Lee, of Washington county, same State. They are bright and active, and well worth looking at, and the ninepence which it costs for the opportunity to do so.

For the New England Farmer.

A MAGNIFICENT PAINTING.

Many of your readers are doubtless aware that many years ago Congress selected an artist to paint a picture for the vacant panel in the rotunda at Washington. William H. Powell, was the almost unanimous choice. After *five years* of labor, the picture is completed. The subject of the painting is, "*De Soto discovering the Mississippi.*" A few words of history will render the description more intelligible. De Soto was Governor of Cuba. In April, 1539, he set out in company with several hundred men, on an exploration through Florida to the Mississippi River. He had been an officer under Pizarro in Peru, and perhaps expected to find gold among the Indians.

"The picture represents the discovery as taking place at the last of the Chickasaw Bluffs below Natchez. De Soto, after months of laborious travel, has just arrived on the banks of the mighty river, which is here spread out in all its beauty and grandeur, and his delight at the discovery of the long-sought-for object, is well delineated in his features and attitude by the artist. His army consisted of three hundred mounted men, and a considerable amount of infantry. They were well equipped, as all Spanish armies at that period were. De Soto's imagination had been inflamed by the descriptions of the river which he had heard from the savages of the forest whom he had encountered; and he pressed on by means of Indian guides, overcoming many obstacles that would have deterred a less daring spirtt. The forests were to be hewn down for his cannon and cavalry, and the Indians had to be fought at every step. Besides, he was in a foreign country, a vast wilderness, of what extent he knew not, and, as he had already ascertained, surrounded by many dangers.

The picture may be divided into four groups. The principals group represents De Soto, mounted on a magnificent white horse at the head of his suite of officers, servants and standard-bearers, and followed by his cavalry, which grow indistinct in the shades of the forest in the distance. The principal feature in this group, of course, is the commander-in-chief, Proudly erect upon his noble steed, the white plumes of his office as Governor of Cuba shading his brow; blazing with the splendid armor of a Spanish noble of the sixteenth century; the yellow banneret of Spain, and the two headed eagle of Austria waving their rich folds over his head, he seems conscious of the dignity of his great mission, which is to take possession of this inland sea and fertile country in the name of European civilization.

The second group in advance of De Soto, and immediately on the bank of the river is a group of native Indians, into whose camp he has just arrived, The third group is formed of some missionaries and soldiers belonging to the army, who are planting a cross as a memento to mark the spot, while the fourth group is composed of a company of men who are preparing to fire a cannon in commemoration of the event.

The group of savages is composed of the chief and his two tall sons, who are coming forward to offer to the white man, the first they had ever seen, the pipe of peace. The old chief stands nearly bent double between his two sons, and holds out the pipe with an expression in his countenance of mingled fear and astonishment. One of the sons looks at the gay plumage, singular costumes and numerous appliances of war of the new comers with evident admiration; while the other has drawn himself proudly up, with an expression of disdain and daring in his countenance which clearly proves what would be his solution of the difficulty, if he had the power. In front of the chief several naked squaws are seen kneeling offering presents of game and corn to their conquerers, hoping thus to conciliate their favor.

Whilst the Indians are presenting their peace offerings, and endeavoring to gain the attention and good will of their visitors, De Soto deigns not to cast a glance at the group in front of him, but with his eyes directed over their heads to the grandeur of the scene that is spread out before him, to the majestic river, dotted with islands, and to the far sweep of country that extends beyond, one can imagine he sees in the glowing countenance and the sparkling eye, the mind of the discoverer carried forward to the realization of that future greatness in population and civilization which is now no longer a matter of imagination. The contemplative, serious delight of the chief is well contrasted by the waving of hats and the laughing shouts of delight of his followers."

Mr. Powell receives from Government $10,000, for this splendid picture, and so arduous has been the work that this sum has proved inadequate. He is permitted to exhibit the painting for his personal benefit for a limited season.

W. D. B.

EXTRACTS AND REPLIES.

CONCRETE BUILDINGS.

Mr. Editor:—I saw an article in your paper for the building of houses with lime and gravel. I wish you would just give me through your paper the manner in which they do it, cost, &c., as nigh as you can ascertain. If you will do so, you will confer a favor on A Subscriber.

Warwick, 1854.

Remarks.—Will some correspondent who possesses the information reply to the above?

REMEDY FOR BLEEDING AT THE NOSE.

Take good *dried beef*, grate it fine and press the cavity of the nose full of it, allowing it to remain until it comes away of itself. It may be a little oppressive, but is a certain remedy. This is the experience of Dr. J. N. Knapp, of Dummerston, Vt., who has been in the successful practice of medicine, since 1814. He has stopped the flow of blood in several instances where the patient has been reduced to a helpless condition, and in two cases where the patient has become delirious and was determined to be left to die. Direct force was used, and the patient recovered.

Randolph, Vt. Geo. F. Nutting.

BEST FOOD FOR MILCH COWS—PLASTER.

Mr. Editor:—I have been a constant reader of the *Farmer* for years, and I wish now to make some inquiries through its columns. I make milk for the Worcester market. I wish to inquire what is the best and cheapest feed for cows that give milk, and what will make the most milk for the same money, and also how to feed them? (*a*.)

Is it beneficial to sow plaster at this season of the year on winter rye and on pastures? (*b*.)

Worcester, Nov. 6, 1854. Worcester.

Remarks.—(*a*.) The questions under this head can only be answered in a general way without long and exact experiments. The "best and cheapest" food for milch cows which we have ever found, was good corn fodder, clover and herd's-grass hay, and half a bushel, or three pecks of roots,—say, beets, parsnips, carrots, flat turnips and ruta bagas,—per day, for each cow, fed to them in the morning soon after they were milked. Under this treatment this gave more milk than under any other, and we found it the cheapest. Good corn fodder will produce milk abundantly.

(*b*.) The autumn is a good time to sow plaster.

THE BLACKSMITH.

BY B. ROBERTS.

O, a mighty man is the blacksmith,
With his sinewy arm and strong;
And as the world have termed him *wright*,
We will not *write* him wrong.

He'd blow and strike, and hammer and pound,
Though a man of peace is he;
He's often given to *forging*,
But never to *forgery*.

He'll screw and twist, and wrench and turn,
Though honest in his dealing;
And while he often *takes the steel*,
He never *takes to stealing*.

His *stock* is seldom less than par,
And often takes a rise;
No matter what his *virtues* are,
He's much to do with *vise*.

His *temper* it is always good,
Though *hard things* form his lot;
He's often in a "melting mood,"
And strikes while the iron's hot.

He sometimes sways an *iron rod*,
Although a foe to *tyranny*;
His *figures* are not those of speech,
Though oft he uses *irony*.

And ere his great work is complete,
And he shall close his books,
Our swords he'll into plowshares beat,
Our spears to pruning-hooks.

Rural New-Yorker.

CALIFORNIA AGRICULTURAL PREMIUMS.

Farming in California is becoming a business of some consequence. We see by the *California Farmer*—quite a smart paper for the new State—that a great Cattle Show was to come off the 4th of October and following days. The State awards the Agricultural Society *five thousand dollars* annually for years, to be given as premiums. The premiums are decidedly worth getting. Among others, for the best farm, $200; second best, $175. The premium for the best flower garden, ($40) is a new idea this way. There is offered a prize of fifteen dollars for the best twenty-five ears of seed corn; best fifty pounds of butter, fifty dollars; best quart of cranberries, ten dollars; best evergreen wreath, twenty dollars. For the best six pumpkins, (probably proposed by a New Englander,) ten dollars.

Premiums are offered with great liberality for farm vehicles, (why not here?) This is a good one: For the best cart horse, to be shown in cart, twenty dollars.

The most important "live stock" premium proposed was one of one hundred dollars for the "finest baby under one year old." Just at the last moment, the executive committee thought it wouldn't hardly do and withdrew it. Their prudence will save unnecessary crying.

Concord, 1854. W. D. B.

☞ The *Tippecanoe Farmer* is the name of a new agricultural paper published at *Lafayette, Indiana*. It is well printed, filled with instructive matter, and will undoubtedly do good service in the cause. Edited by A. J. Weaver and John Lovering. Fifty cents a year.

TURNIPS AND SALT HAY.

We copy from the *Maine Farmer*, of October 9, 1854, a paper published under the editorial care of Dr. E. Holmes, at Augusta, the following correspondence, which, if we do not mistake, will be read with interest by many a farmer. We make no pretensions ourselves to a knowledge of *the growing of turnips*, or *the peculiar qualities of salt hay* so much of which springs spontaneously, without culture, all along our shores; but when the elements of these products are incorporated in the form of *a sirloin of beef*, with the streaks of fat and lean properly intermingled, (or to use the expressive phrase of Mr. Sprague, "well marbled") we yield to no one, of our inches, in the ability to do it justice. When we see names like those approving this experiment, gentlemen whose opinions are confirmed by the experiments of many years, we think we are safe in following their lead, and in endeavoring to lead others in like paths. There is more real utility, in one such experiment, well established, than in all the *fancy speculations* ever put forth, without confirmation by experiment.

GOOD USE OF TURNIPS AND SALT-HAY.

Mr. Editor:—I forward for publication in your paper, a copy of a letter that I used in speaking to the farmers of York county, on the 5th inst., at Biddeford. It contains facts, in my opinion, worthy to be remembered. It is supported by the names of Webster and Sprague—as well entitled to credit in such matters as any I know.—Let any one pass from Boston to the Kennebec, and take a glance at the *salt marshes* by the way, and he will see abundant occasion to seek a valuable use for salt hay, and for the growing of turnips, in these days, when the potato has so generally failed, though I am happy to say that our potatoes the present season are much better than we had any reason to expect. Eight hundred bushels of turnips to the acre, can be raised as easily as two hundred bushels of potatoes, or as 50 bushels of corn, so far as my observation has extended. I was much pleased with the fine working oxen that I saw at Biddeford; while such animals can be reared on such farms, there can be little necessity of introducing animals from abroad, at *three times the cost* for which they can be reared.

J. W. Proctor.

Danvers, Mass., Oct. 7, 1854.

Hon. J. W. Proctor,

Dear Sir:—In answer to your inquiries relative to my experience of the value of turnips and salt-hay, I can only say that notwithstanding I have raised from one to two thousand bushels of turnips, beets and carrots, and fed them to my cattle, horses and hogs for several years past, I have no data to estimate the real value, but from a single experiment I made at the suggestion of the late and lamented Daniel Webster.

Having purchased a number of young cattle from a drove from Maine, and finding a heifer not in calf, and a steer of ordinary quality, I thought I would try what turnips and salt-hay would do for them. They were both *two years old*; the heifer was thrifty and in fair condition for winter stock; the steer a mean animal, thin of flesh, badly built, a poor feeder, and such as most of our farmers in the vicinity would have thought more likely to die than live, on such feed as I was about to confine him to. They were put into the stall the latter part of November, and fed on ruta baga turnips and salt hay. The heifer consumed nearly one bushel per day, the steer not much more than one half that quantity. At the end of four months I sold the heifer to the butcher. She opened well, but with not a large quantity of fat on the kidney, or of rough tallow, but the side was thick and well marbled, or mixed with fat and lean. The meat was juicy and well flavored, and much admired by all who saw or tasted it.—Being fearful the turnips or salt hay might give an unpleasant flavor to the meat, I gave her, for four or five days previous to her being slaughtered, English hay and a little Indian meal. With this exception she had not a mouthful of food of any kind but turnips and salt-hay. Water was offered them occasionally, but they drank but little. The steer was slaughtered shortly after; he was very decent beef, but no way comparing to the heifer. I was much pleased with the result Some very intelligent farmers will not believe that turnips possess any nutritive quality, and ridicule the idea that an ounce of fat can be made from them. And the opinion is equally strong against the fattening of hay from our salt marshes. This experiment does not show much profit, but it proves a fact of importance, especially to farmers, in the use of salt-hay; and they can raise turnips by their own labor, and thus fatten their cattle intended for the shambles, avoiding the payment of money for corn or other expensive feed.

Yours with respect,

SETH SPRAGUE.

Duxbury, Mass., Sept. 30, 1854.

For the New England Farmer.

CHEAP AND EXCELLENT CANDLES.

MR. HOLBROOK:—The following receipt I copied from a newspaper, some twelve months since. I have tried it twice, and find it all that it is cracked up to be. I have no doubt that it would have been worth more than $20 to me if I had known it twenty years ago. Most farmers have a surplus of stale fat and dirty grease, which can be made into *good candles* at a trifling expense.

I kept both tallow and lard candles through the last summer, the lard candles standing the heat best, and burning quite as well, and giving as good a light as the tallow ones. I have never seen it in the *New England Farmer;* perhaps it has been published there, notwithstanding.

I submit the following directions for making good candles from lard: For 12 lbs. of lard, take 1 lb. of saltpetre and 1 lb. of alum; mix them and pulverize them; dissolve the saltpetre and alum with a gill of boiling water; pour the compound into the lard before it is quite all melted; stir the whole until it boils; skim off what rises; let it simmer until the water is all boiled out, or till it ceases to throw off steam; pour off the lard as soon as it is done, and clean the boiler while it is hot. If the candles are to be run, you may commence immediately; if to be dipped, let the lard cool first to a cake, and then treat it as you would tallow. Respectfully yours,

ALANSON PARMELEE.

Wilmington, Vt., Nov. 11, 1854.

BRILLIANTS.

A POET'S EPITAPH.

Stop, mortal! here thy brother lies,
  The poet of the poor;
His books were rivers, woods and skies,
  The meadow and the moor;
His teachers were the torn heart's wail,
  The tyrant and the slave,
The street, the factory, the jail,
  The palace—and the grave!
Sin met thy brother everywhere!
  And is thy brother blamed?
From passion, danger, doubt and care,
  He no exemption claim'd.
The meanest thing, earth's feeblest worm,
  He fear'd to scorn or hate;
But, honoring in a peasant's form
  The equal of the great.
He bless'd the steward, whose wealth makes
  The poor man's little more;
Yet loath'd the haughty wretch that takes
  From plunder'd labor's store,
A hand to do, a head to plan,
  A heart to feel and dare—
Tell man's worst foes, here lies the man
  Who drew them as they are.

EBENEZER ELLIOT.

LUTHER TUCKER, ESQ.

J. AMBROSE WRIGHT, ESQ., Editor of the *Prairie Farmer*, published at Chicago, and one of our excellent agricultural publications, indulged himself during the past summer in some rambles, and has given graphic sketches of some of the men and things which he saw. We only regret that his intention of visiting Boston was interrupted, and we lost, what we should have gladly claimed, a share of his time.

Among other persons whom he mentions as engaged in the work of agricultural progress, is the gentleman whose name stands at the head of this article. He says:

"I have already mentioned that I met Luther Tucker at Albany. Mr. Tucker is I believe the oldest living publisher of Agricultural papers in the United States. Certain it is, that no man in this country, if anywhere else, has given to the world so many issues of this kind, of such uniform and enduring value. His old Genesee Farmer, published at Rochester, and of which he put forth, if I recollect right, some dozen volumes, was a paper of mark in its day, and has been the real parent of the whole Northern brood of similar name and purposes. Notwithstanding the great reputation of Judge Buel's Cultivator, that paper rose at once in value upon Mr. Tucker's connection with it; and to this day it has never had any rival, which one can from month to month turn over, and then put away to be bound up in his Library, with so uniform satisfaction. Mr. T. made his editorial beginning with a political paper, having been educated a printer. From this he published the Genesee Farmer; then the Albany Cultivator—still continued in connection with the Country Gentleman, which latter at this time is his real paper—the Cultivator being made up from its pages from month to month. In addition to these, The Horticulturist, edited by Mr. Downing, passed through seven volumes in his hands. It is as a publisher, as much, if not more, than as editor, that Mr. Tucker excels. In the uniform correctness and neatness of his publications, together with excellence of materials, no one has ever long come up beside him. It was our opinion when he started his "Country Gentleman" that he had made a mistake in his title. We *rather think* that to be now Mr. Tucker's opinion also; though it is a popular paper, and is steadily growing in public favor. He was led to this title by Mr. Downing, whose idea it was, and whose esthetical preferences led him away from the masses of the people.

"Mr. Tucker is personally a man somewhat past middle life—say near 50 years of age—about five feet ten to six feet in stature; of spare, temperate and correct habit, and of decidedly nervous temperament. He still labors day by day, at his editorial desk, where he is now aided by a son, late from the halls of old Yale, and to whom are now committed the Fireside pages of the "Country Gentleman." J. J. Thomas, who has the care of the Horticultural Department, resides at Macedon."

ICE HOUSES.

Ice is no longer considered an article of luxury, merely, but one of healthful economy; it is cheaply and easily stored and preserved when the right methods are pursued, and to those who make it a matter of merchandize, one of considerable profit. The letter below will speak for itself.

Mr. Editor:—The ice house that I built three years since, keeps ice the entire year. It stands on the north side of my wood shed, and is made by setting a frame about ten feet square into the ground, a plank set up on the outside, and dirt thrown in to hold them up to the frame. The bottom is covered with a lower floor, the sides and roof made of rough boards, the sides being open as a common barn, with a covering of straw on the ice. Most of the ice houses in this vicinity are made too close, which causes the ice to melt; the air should have free circulation through the building. I think the plan much better and cheaper than to build them above ground; mine cost about ten dollars.

Respectfully yours,
C. S. Hamilton.

Hartford, Ct., Nov. 21, 1854.

Mr. E. Marks, in a late number of the *Rural New-Yorker*, gives the following directions for making a small ice house, which is pretty much on the same plan as the above, though perhaps not so durable.

"Make a box eight feet square, by nailing hemlock planks which are two inches thick, on to hemlock scantling. Let one side of the box be seven feet high, and the side directly opposite ten feet high. This gives a roof eight feet long with a slant of three feet.

"It is well to have the roof boards extend over the sides of the box. Double boarding with hemlock makes a sufficient roof. Set this box on the top of the ground, in a dry and shady place, where surface water will not accumulate. No planks are needed on the bottom of the box, but sawdust must be placed on the ground inside the box, to the depth of one foot, and over this place loose boards for the ice to lay upon. Cut the cakes of ice two feet square, and build a tower of ice six feet square in the centre of your box, (or ice-house, we will now call it,) by laying the cakes compactly together, filling all crevices with sawdust as you proceed. We have now a cube of ice, with a space all around, between the ice and the planks. Fill this space with sawdust, and cover the top of the ice with the same, eighteen inches deep, and you have ice enough secured to last a family through the season. The upper three feet of the side which is ten feet high should not be boarded up, but left for ventilation, and a place of access to the ice, and this aperture may be enlarged as convenience may require, while using the ice, and for more conveniently filling in. About eight hundred feet of lumber will be required, and the merest tyro in the use of tools can make it. Fresh sawdust is best, but it may be used a second winter. The dust can easily be washed from the ice at the time of using."

JOHN RANDOLPH.

He was one of the large slaveholders of Virginia, but disliked the institution, and when let alone opposed its exertion. Thus in 1803, when as chairman of the committee which reported upon the Indiana memorial for a temporary dispensation from the anti-slavery part of the ordinance of 1787, he puts the question upon a statesman's ground; and reports against it, in a brief and comprehensive argument:

"That the rapid population of the State of Ohio sufficiently evinces, in the opinion of your committee, that the labor of the slave is not necessary to promote the growth and settlement of colonies in that region. That this labor, demonstrably the dearest of any, can only be employed to advantage in the cultivation of products more valuable than any known to that quarter of the United States; and the committee deem it highly dangerous and inexpedient to impair a provision wisely calculated to promote the happiness and prosperity of the north-western country, and to give strength and security to that extensive frontier. In the salutary operation of this sagacious and benevolent restraint, it is believed that the inhabitants of Indiana will, at no very distant day, find ample remuneration for a temporary privation of labor and emigration."

He was against slavery; and by his will, both manumitted and provided for hundreds which he held. But he was against foreign interference with his rights, his feelings, or his duties; and never failed to resent and rebuke such interference. Thus he was one of the most zealous opposers of the proposed Missouri restriction; and even voted against the divisional line of "thirty-six thirty." In the House when the term "slaveholder" would be reproachfully used, he would assume it, and refer to a member not in the parlimentary phrase of colleague, but in the complimentary title of "my fellow-slaveholder." And, in London, when the consignees of his tobacco, and the slave factors of his father, urged him to liberate his slaves, he quieted their intrusive philanthropy on the spot, by saying, "Yes: you buy and set free to the amount of the money you have received from my father and his estate for these slaves and I will set free an equal number."

In his youth and later age, he fought duels: in his middle life he was against them; and for a while, would neither give nor receive a challenge. He was under religious convictions to the contrary, but finally yielded (as he believed) to an argument of his own, that a duel is a private war, and rested upon the same basis as public war; and that both were allowable when there was no other redress for injuries. That was his argument; but I thought his relapse came more from feeling than reason; and especially from the death of Decatur, to whom he was greatly attached, and whose duel with Barron, long and greatly excited him. He had religious impressions, and a vein of piety which showed itself more in private than in external observances.—He was habitual in his reverential regard for the divinity of our religion; and one of his beautiful expressions was that, "If woman has lost us paradise, she has gained us heaven." The Bible and Shakespeare were, in his later years, his constant companions—travelling with him on the road—remaining with him in the chamber. The last time I saw him (in that last visit to Washington, after his return from the Russian mission, and when he was in the full view of death,) I heard him read the chapter in the Revelations (of the opening of the seals,) with such power and beauty of voice and delivery, and such depth of pathos, that I felt as if I had never heard the chapter read before. When he had got to the end of the opening of the sixth seal, he stopped the reading, laid the book open at the place on his breast, as he lay on his bed, and began a discourse upon the beauty and sublimity of the Scriptural writings, compared to which he considered all human composition vain and empty. Going over the images presented by the opening of the seals, he averred that their divinity was in their sublimity—that no human power could take the same images, and inspire the awe and terror, and sink ourselves into such nothingness in the presence of the "wrath of the Lamb" that he wanted no proof of their divine origin but the sublime feelings which they inspire.—*Benton's Thirty Years.*

HOW LONG IT TAKES TO GET APPLES.

Mr. Buckminster, Editor of the *Ploughman*, in a recent editorial says—

"We have three hundred trees set, *two years ago*, in our orchard in Framingham. Some of these (the Baldwins) bear fruit this year. One has borne thirty-seven good apples. People may preach about waiting 20 or 30 years for a young orchard to come to bearing—and they must wait if they procure good-for-nothing trees and set them in a good-for-nothing soil. But why not give young trees a chance to grow?"

The trees spoken of above, are very handsome, and promising, and we think an examination of them would satisfy a person about to plant an orchard that trees of three or four years of age, handsomely headed in the nursery, would prove the most profitable, although costing something more than younger and smaller ones at first.

For the New England Farmer.

AGRICULTURAL IMPLEMENTS.

REPORTED TO THE CONCORD FARMERS' CLUB, BY JOHN RAYNOLDS.

Agriculture, being the mother of the arts, and the chief reliance of civilized man for the means of subsistence, and its operations having been, in a great degree, dependent upon the application of muscular strength, it has *naturally* followed that man's inventive genius has been more or less engaged, during the last half century, in the improvement of machinery, and all the implements of farm husbandry.

In our country this spirit of improvement, this constant striving for something better, has perhaps been more apparent than in any other part of the world, and has been attended with better and happier results. One of the evidences of this is, that during the last year *one hundred and fourteen* patents have been granted for agricultural implements, twenty-seven of which were for harvesters, power reapers, mowers, &c.

Agricultural organizations and cattle shows serve to awaken the attention of farmers to the *necessity* of employing all the aids which mechanical skill and invention can supply, and thereby increases the demand for that skill; and every aid which the latter can contribute to the success or prosperity of the farmer, is so much contributed to its own.

I believe it is now generally conceded, by most good farmers, that horse power and labor-saving machines may be introduced with advantage and profit. The farmer and agricultural implement maker are mutually bound together by the strongest ties of interest, and the same stimulus which promotes the advancement of the one, operates equally to the advantage of the other. It is this stimulus which has brought to so high a state of perfection the various kinds of machinery and implements now employed on the farm.

The *plow* is the *most* important implement used on the farm, and great improvements have been made in this article within a few years, especially in the draft, and in its adaptation to subsoiling. The *double*, or sod and subsoil plow, as it is called, I consider one of the best implements now in use, and I think that *any* farmer who has witnessed its operation, cannot but be convinced of its great utility and importance.

Another indispensable implement upon the farm, and one of *great* utility, is the *harrow*. This naturally follows the plow, and perhaps ranks the second in importance. There are many forms of this implement. Having occasion to purchase one recently for my own use, I have examined somewhat carefully their various merits, and have come to the conclusion that there are none in use better than the square and improved hinge harrows.

The roller I consider a very valuable article, especially on light soils. Among the advantages to be derived from its use are, that on sowing down to grass, it smoothes the land by forcing sods and small stones into the soft ground, pulverizes the lumps of earth, and, by pressing the light, loose soil around the seeds sowed, they will be more likely to germinate; by making the earth compact, also, at the surface, *insects* will be in a measure deprived of their shelter. Rollers are constructed of both wood and iron, and are made in from one to six sections. For common use, I should select one made of wood, with *two* sections of about two and a half feet each, and about three feet in diameter.

The *horse rake*, in its various forms, has proved itself of great service. With a good mowing machine and a good horse-rake, it would seem that the laborious task of haying might be converted into a pleasant amusement.

There are many other implements which have been recently introduced, and which promise to be valuable aids to the farmer. Among these are the reaper, horse-drill, horse-hoe, &c.

Valuable improvements have also been made in many of the smaller and more common implements, such as shovels, forks, hoes, &c. It is probably safe to say that double the amount of labor can be performed, in a given time, with such tools as we now have at command, than with those used in by-gone days.

The whole subject of farm implements, in all its various bearings upon the labors of the farm, is, or should be, one of much interest to every farmer. No *farmer* or *mechanic* can perform a good piece of work without good tools, therefore parsimony in this matter is bad economy.

In no way can a farmer contribute more to his pleasure, comfort, or success, than by a liberal and judicious expenditure for implements.

WHAT WILL MAKE A COW GIVE DOWN HER MILK?

The inquiry in the *American Agriculturist*, "What will make a cow give down her milk?" reminded me of an incident in my own experience.

We have a fine cow, which goes by the name of Whitey, on account of her color. She gives a large quantity of milk, and of superior quality. Her only fault is, that she is rather too intelligent, and knows too well how to look out for her own interests. She is evidently in favor of bovine rights, and has no idea of submitting, against her judgment, to the control of man and woman. She can let down the bars of the pasture very nicely, if there are no precautions taken to prevent it; and if the fence is not "legal," she does not consider it worthy her regard. She understands the mysteries of latches and hooks; and, if she has a calf to look after, she knows very well how to retain a sufficient portion of her milk for its nourishment.

Bridget had been with us several weeks, and I had always given her particular instruction to treat the cow gently, and never strike her. One day she came to me, and told me that Whitey would not give down her milk. She had tried for some time, and could not get a "sup." I had known the cow so long, that I had learned if she was coaxed with a bucket of delicacies, she would for a time forget her calf, and not refuse to yield her milk

"Unto the milkmaid's hand; while in regular cadence
Into the sounding pail the foaming streamlets descended."

So I told Bridget if she would "slop" the cow, she would have no difficulty. She went out, and pretty soon came in again.

"How have you succeeded this time?" I inquired, expecting her to show a pail of foaming milk.

"Oh, ma'am," she answered, dolorously, "I slopped her all about the barn-yard, and could get nary a drop."

"Slopped her about the barn-yard! What does she mean?" I said to myself. I inquired into the matter, and found she had been "bating" the cow.

"Why did you do that?" I asked. "I have often told you never to strike her."

"But you said, ma'am, if I would slop her, she would give down her milk."

So poor Whitey had a beating, and Bridget had no milk, because I had used an expression which I had frequently heard, but which she entirely misunderstood. If I had told her to give the cow a "mash," she would probably have known what I meant.

After suitable explanations, Bridget tried a third time, and with much better success. She prepared some food which the cow liked, and as Mooly was not slapped, she stood still, and gave down her milk, Bridget wisely concluding that the way to a cow's heart, as to a child's, is through the mouth.—*American Agriculturist.*

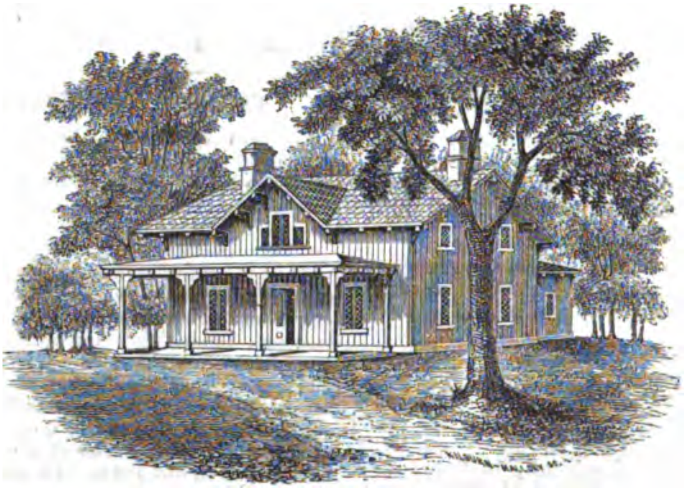
THE CITY OF SEBASTOPOL.

The best description, which we have seen, of the defence of the city and port of Sebastopol, is one given by Mr. Scott, a late English traveller, who gives the results of his own observation.—The port consists of a bay, running in a south easterly direction, four miles in depth, a mile wide at the entrance, and narrowing to a quarter of a mile at the end, where a small river enters it. It has an average depth of water of about eight fathoms; the bottom being of mud in the centre, and of gravel at the sides. The military harbor, where the Black Sea fleet is moored in winter, and where the largest ships may lie with all their store on board, close to the quays, is a mile and a half long, and a quarter of a mile wide. It is land locked on every side. On the east side, near the entrance, are the naval arsenals and docks. There are besides the commercial and the careening harbors, and outside the entrance is the quarantine harbor.

The port is defended on the south side by six principal batteries aud fortresses, mounting from 50 to 190 guns each; and on the north by four with 18 to 120 guns each; and there are many small batteries in addition. The fortresses are built on the casement principle. Three of them have three tiers of guns, and a fourth two tiers. The largest, Fort Nicholas, mounts about 190 guns. Mr. Scott by great interest obtained permission to enter this port. He counted 186 guns. It is built like all other forts, of white limestone; a fine sound stone, which hardens by exposure to the air, and is very durable. Between every two casements are furnaces for heating shot red hot. Mr. Scott measured the calibre of the guns and found it to be eight inches, capable of throwing shells, or 8 lb. solid shot. We could not say whether all the guns in the fortress were of the same size but it was his belief that most of the fortifications were heavily armed.

At the time of his visit, there were not more than 850 pieces of artillery defending the fort toward the sea, and of these about 350 could be concentrated on a ship entering the bay. The position is admirably adapted by nature for strength towards the sea, and it has been fully taken advantage of to make it one of the strongest that can be imagined. The work, however, of the consummated fortresses, he says, is badly constructed,—the work being carried on under a Russian engineer, whose object was to make as much money as possible, and the walls are filled in with rubbish. This is said to have been the case with the principal fortress at Bomarsund, yet it is difficult to imagine that so costly and important works as those at Sebastopol can have been in general constructed in such a manner, though we doubt not the Russian, as well as most other governments, has been defrauded to a great extent in this manner.

Mr. Scott remarks also that the fortresses were found defective in ventilation, to remedy which, some alterations were subsequently made, but admitting all these defects, he adds, they are still strong enough to inflict some amount of injury on an attacking fleet before their guns could be silenced; and in addition to these pieces, which now may number 950, there are 500 guns of large calibre in strong open batteries, half of them throwing shell and red hot shot, independently of mortars. If these forts can be silenced by the allied fleets alone, without land forces (these remarks having been written before an attack by land was contemplated,) it would be satisfactory to know, he remarks, what amount of resistance Portsmouth could make with her 70 or 80 guns, not more than five and twenty of which are heavier than 32-pounders.



BRACKETTED COTTAGE, WITH VERANDA.

The design here given, and the accompanying description, we copy from "*Downing's Country Houses*," believing that they will prove acceptable to many who would be glad to build if a proper design were presented them, one coming within moderate means, and combining convenience with something of elegance and taste It may cost no more to combine these qualities than to build without them. He says :—

"A pleasing, symmetrical form, some picturesqueness of roof, united to considerable simplicity of construction, and an expression of more domestic enjoyment than cottages of this size usually exhibit, are the characteristics of this design.

"The larger expression of domestic enjoyment is conveyed in the veranda or piazza. In a cool climate, like that of England, the veranda is a feature of little importance. But over almost the whole extent of the United States, a veranda is a positive luxury in all the warmer part of the year, since in midsummer it is the resting-place, lounging spot, and place of resort, of the whole family, at certain hours of the day. It is not, however, an absolute necessity, like a kitchen or a bed-room, and, therefore the smallest cottages, or those dwellings in which economy and utility are the leading considerations, are constructed without verandas. But the moment the dwelling rises so far in dignity above the merely useful as to employ any considerable feature not entirely intended for use, then the veranda should find its place. To decorate a cottage highly, which has no veranda-like feature, is, in this climate, as unphilosophical and false in taste, as it would be to paint a log-hut, or gild the rafters of a barn.

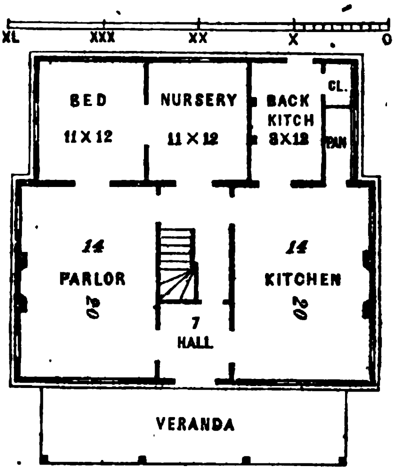
"Accommodation. The interior of this cottage, gives a neat and pretty parlor, of 14 by 20 feet; the principle is to get as large an amount of convenience and comfort in every-day-life as possible, and leave the rest to take a secondary rank.

"Hence, the kitchen, bed-room, nursery, and back-kitchen, the scene of a good deal of the daily life of the mistress of this cottage, are all on the first floor, and all close together. The last three of these are economically obtained by putting them in a one story *wing* added to the rear of the cottage; and though the rooms thus afforded are not large, yet they are large enough when they are to be kept in order with very little "help."

"The kitchen, in this plan is properly the living and eating room of the family, and in order that it may always be kept neatly, there is a small back kitchen adjoining, with its separate flue for a small range or cooking stove, so that all the rougher work can be done there, which makes the larger kitchen, usually, a pleasant family dining-room.

"There is a partition across the hall, just by the stairs, which is intended to serve as the extreme limits of nursery excursions, on all occasions when decorum in the parlor is the order of the day, The door here, as well as the front door, should have the two uppermost panels glazed, so as to light both parts of the hall when they are closed.

"*Estimate.* The estimated cost of this cottage, well-finished, is $1278." This, of course, would vary in different locations, and would be higher now than for several years past.



GROUND PLAN OF BRACKETTED COTTAGE WITH VERANDA.

NO COMFORTS—THE SECRET.

A few days since we were in one of our lower valleys, and while in conversation with a few cultivators and their families, we heard continually of the poverty of those who were engaged in farming. All manner of complaints came from the families of their want of the ordinary comforts of life. One good and industrious wife remarked that she would like to live here if she could have those necessary comforts that make life desirable; she did not like to live as she did. Her husband was always complaining of hard times and of scarcity of money, that he could not get along, and that he would never get enough to go home with. For her part she did not like to live so. They had plenty of land and grain, cattle and horses; but she had no garden, no wash-house, no wood-shed, no hens or chickens, no cow; in fact she had but little or none of the comforts she thought ought to be had around a place where one lived. Upon an inquiry of the farmer how *he* was getting along—"well, he was trying hard to get enough to take him back again; he had not done much this year, he had only made about *five thousand dollars*."

Here is the secret; a class of men who are farming to make money, living to make money, not making it to live; and while they are doing well they deprive their families of the ordinary means and comforts of life, filching the treasures of earth to carry away. They feel no interest in what relates to a home here, but are continually unsatisfied themselves and making others so, unless they can hoard up gold.

We believe this class of farmers are the *incumbus* upon the soil, and the quicker all get rid of them the better; and we believe the present embarrassments that rest upon the interests of Agriculture result from this very class of men. What California wants, in and among Agricultural districts, is homes, where the chief aim shall be to render that home as attractive as possible, and where the entire income of a farm shall be devoted to its improvement and increased productions, and to placing, in and around that home, those comforts and blessings that shall give it such attractions that there shall never be a spirit of complaint or murmuring, but one continued hymn of rejoicing and thankfulness for the "abundance which the earth giveth."

When such a spirit prevails it will be emanations from an enlightened body of men, who will then understand their own employment, and understanding it, they will avoid the mistakes which the present heterogeneous mass now make, whose only aim is to make money—home or no home—which must ever result in ruin to themselves and all connected with them.—*California Farmer.*

☞ At the close of the current year, it is stated, the treasury of the State of Missouri will have on hand the handsome surplus sum of $400,000.

For the New England Farmer.

FALL PLOWING AND THE CUT-WORM.

MR. EDITOR:—I see, by one of your late papers, that there is some little discussion on the subject of fall plowing, and being in favor of it, I propose to speak of at least one very good reason why it should be practised. I allude to the destruction of insects in general, but to the destruction of the cut-worm in particular. The farm I live on is the one which my father occupied for more than forty years; it is of a light, sandy loam mostly, and during his life the cut-worm was very troublesome, sometimes destroying whole crops in spite of all his efforts, (and they were not small,) but he never plowed in the fall. Since I came in possession of the farm, and practised fall plowing, I have never lost a crop by the worms, or been troubled, to any extent, if the plowing was done late.

I will give one instance, where a small part of a field was left unplowed on account of winter setting in while I was about it. The land of which I speak was all under the same cultivation; the part plowed in the fall made 24 rows, 16 rods long, and 10 rows from 16 to 10 rods, equal to one row 514 rods long; the part not fall-plowed was 8 rows, from 3 to 6 rods long, equal to 36 rods of one row. The land was plowed and manured all alike in the spring, and set with tomatoes at the same time, and on the 36 rods I lost more plants during the season than on all the rest of the 514 rods. It was my practice to go over the ground every morning, and kill the worms, and reset all missing plants at night, and I kept an account of the whole transaction at the time, but it is several years since, and I have forgotten the exact number. I have been particular in making the account of the rows, as I have had tomatoes on the same land this year, and make my calculations by the rows the present year.

Yours, &c., B. F. CUTTER.

Pelham, N. H., Nov. 27, 1854.

ORGANIC AND INORGANIC MATTER.

Farmers frequently remark that they do not comprehend the precise meaning of the terms "Organic" and "Inorganic," as applied in agriculture. They are at a loss where to apply the proper distinction which they suppose ought to be observed in judging of the two forms as they occur in nature.

All living animals and plants, and their carcases, when the vitalizing principle of life has left them, are composed of organic or organized matter. These are readily distinguishable from inorganic matter by a structure visible to the eye, as observable in the fibres of hemp and flax—the porous structure of wood and flesh, and the more complicated texture of hide and hair.

Rocks and soils—the waters of lakes and oceans—all things, in short, that do not live, which neither are nor have been the medium of vitality, are to be included under the general division of inorganic matter. Plants and animals of whatever description, are composed mainly of the four principal elements—carbon, oxygen, nitrogen and hydrogen. When either amimal or vegetable matter is burned, it loses its texture and disappears, leaving behind only a slight residuum of ash.

The substances above named, being derived from the atmosphere, are released, and are termed organic elements, or constituents. All the multifarious forms and mutations observable in the animal and vegetable kingdoms, are attributable to the chemical combinations, through the operation of the vital principle, of these primary elements.

Vegetable oil and starch, sugar and animal fat, are,by fire, resolved into their original elements—carbon, oxygen and hydrogen. These, with all substances of a similar nature, or character, are the result of, and derived wholly from organized matter. Wood, burned in the open air, has its organic constituents dissipated; the inorganic particles only remaining. In the ashes may be detected magnesia, lime, silex, potash, oxide of iron, &c. These latter constitute the inorganic parts of the vegetable system, and are derived from the soil. It may be proper here to observe, that there are many organic substances in which no structure is visible. Gum, sugar and starch, are all found in plants, and yet are deficient in pores and fibres; but being produced by the natural operation of living organs, are included, with propriety, under the head of organic matter.

It would be well for our farmers if they could analyze their crops and soils on which they are produced. Few, however, are competent to do this, and much therefore, remains enigmatical and unexplained. But as time advances, and science diffuses light over the earth, these mysteries will gradually pass away; and the farmer will then discover that when he gathers in the rich fruits of his industry in the fall, he collects together a portion of what was his soil at seed time. In his wheat he will detect lime, flint, and a portion of clay. His Indian corn, a crop in which he justly glories, contains also the same materials though differently modified in combination, and so do most of the grains he cultivates. All vegetables must have a certain proportion of mineral matter to perfect them; and it it consequently important that he should understand how he can best supply them by animal manures, or mineral applications where there is a deficiency of power to supply them in the soil itself. Animal manures contain these mineral ingredients in a soluble state, and consequently in a condition the most perfectly adapted for immediate appropriation. No particle of matter can enter into, or be assimilated by the vegetable organism, until its texture has been broken and modified by the solvent action of water.

Thus, it will be seen that there is an intimate relationship, and constant interchange between the animal, vegetable, and mineral kingdoms, and the more perfectly we comprehend the laws of this union, and the phenomena to which it gives rise, the better shall we be prepared to avail ourselves of the riches and emoluments which nature so prodigally holds forth as an encouragement to enlighten toil.

We should ever bear in mind the important fact that manures are endued with different degrees of energy, partly from their innate richness, and partly from the facility and promptness, with which they part with their fecundating particles to the soil, and to the roots of plants. These are given off only in solution, or in ærified bodies, (gas,) the first taking the name of liquid manure, which penetrates the soil and is absorbed by it to feed the roots of the crop, and the other as air, which, if not absorbed and fixed by some substance for which it possesses a strong affinity, will pass into the atmosphere and be lost. It will hence be seen that the art of manuring consists not so much in the liberality of your benefactions to the soil, as in the competency of the measures we adopt to prevent the escape of the soluble and gaseous products of the matters applied.

It has been estimated by a late writer, that more than one-half of all the active nutrimental matter formed by the consumption and decay of organic substances, is wholly lost in consequence of the imperfect habits of our farmers in applying them. This is, indeed, an important consideration, and no one who contemplates it philosophically, will find cause to question the verity of the remark above quoted.

For the New England Farmer.

GRAIN CROPS.

REPORTED TO THE CONCORD FARMERS' CLUB, BY JACOB B. FARMER.

For many years past, it has generally been thought that wheat could not be raised in New England; but this I believe to be an error. For the past two years I have tried the experiment, and have succeeded better than I expected to, raising twenty-eight bushels of fine wheat on about one and a half acres. This is a greater number of bushels than I have ever known to grow of rye, on the same ground, in any one year for the last forty years, it having been sown many times within that term. The soil is a very light, sandy loam, well adapted to the growth of rye. All the manure for the wheat consisted of two loads of meadow mud, two casks of lime, two casks of plaster and five or six bushels of hen manure, well mixed and sowed broadcast, and cultivated in with the wheat. I think it will not be amiss to state here that there was a part of the ground that had none of this compost on it, and it had next to no wheat on it too. I am satisfied, from the experiments that I made, that the ground on which it was sown was deficient of lime and plaster to a great extent; if these be the principal ingredients that are wanting, they are both cheap and easy to be obtained. At any rate, the crop is worthy of more attention than has hitherto been given it. The variety is what is termed "the blue stem winter wheat."

Rye is a crop that, as a general rule, has been treated very shabbily; but, as the straw has got to be so valuable now, it is considered worthy of better treatment. I believe there can be but little dependence placed on any soil (unless it contains considerable sand,) for a crop of rye, except what is usually termed burnt land. Now, whether the application of ashes to the soil would render the crop as certain on all lands as the burning of brush does on new land, or approximate near to it, is a question I cannot answer, but it may be worthy an experiment.

In regard to oats, I differ in two points from many people. The first is the quantity of seed to be sown per acre. I hold that two bushels per acre is enough for any land where there is grass-seed sown; if there is more than that quantity sown, the young grass is killed in about the same proportion to the extra quantity of seed sown, (without a corresponding increase of grain,) by the oats lodging, shading, and exhausting the soil of moisture. If the season is such that the young grass survives until harvest, and it is then any way warm and dry, it will then perish like dew before the sun. The other point on which I differ is the time of harvesting. My rule is to harvest when the oats have turned yellow about half way down the head; at that time they will not shell by cradling; the oats are brighter, and the straw is worth nearly double for stock; this rule will hold good, to a certain extent, both with wheat and rye.

As for barley, I never could raise a remunerating crop; whether from the want of knowledge in cultivation, or adaptation of the crop to the soil, is more than I can say.

On all these crops I would recommend, in all cases, more manure and better cultivation, and with these the cultivator will find a largely increased profit.

Concord, Nov., 1854.

Accident.—Between five and six o'clock Monday evening, a man who gave the name of Wilson, was found upon the track of the Boston and Worcester Railroad, near Auburn Dale, in a wounded condition, his nose being badly mangled, and the back part of his head severely cut. As the five o'clock Worcester train from Boston passed the West Newton crossing, a man was seen upon the top of the cars, and it is supposed that this was Wilson, and that he was knocked off by the bridge near Auburn Dale. He was taken into the house of Mr. Scribner and his wounds dressed. It is thought that he will recover.—*Traveller*.

☞ We learn from the *Concord Patriot* that the sum of $11,000 has been subscribed in that city towards the erection of a Unitarian church, in place of the structure recently consumed by fire.

A HOME IN THE COUNTRY.

We copy the following from the *Country Gentleman*. It contains so much sound, common sense, that we wish every business man of the city to read it:

Hundreds of good-hearted men are toiling severely in our large cities, wearing out their bodies and brains in the hopeless endeavor to acquire what is called "a fortune," upon the interest of which they may support their families and themselves in the decline of life. Their families are already expensive, and, amidst the vicissitudes of trade and business, how rarely is the wished-for happiness accomplished. It costs from $800 to $1,200 per year to support a family of five or six children, in genteel position, in a city, and it would require at least $20,000 of positive cash to do this without the aid of a business income. To support the family, then, and lay by enough to form a moderate fortune, within the number of years that a man may reasonably count upon being successful in business, is evidently a herculean task, as times go. I know many men, in a good business position, with $10,000 worth of stock on hand in their stores, a good credit, and very free bank accommodations, who cannot support their families in the manner described, for three years in succession, and find themselves $500 better off at the end of that period. They have first a good year, and make $1,500 or $2,000, and then a bad year, and lose two-thirds of former accumulations. And so it goes. They are absorbed in business, they find no time for study or relaxation, the mind becomes fallow, and the body loses its vital spirit, and disease and misanthropy follow.

Now, to such persons I wish to suggest a means of becoming *independent* in a very few years—that happy result which teazes and puzzles the brains of so many ambitious mortals. We will say that you are in successful business and can possibly save $500 per year, or some years at least. Do this, and get together $2,200; take $200 of this, or less, according to your age, and get an insurance upon your life for $5,000, for the benefit of your wife and children. Make it a perpetual insurance, so that your policy shall not run out, and the premium be raised; pay the first year down. Then look about you, and find a small farm, near the city where you reside, worth, say $4,000 or $5,000. Let it be on a river or railroad, easily accessible from town, in about an hour's ride, without a horse and carriage. Pay down $2,000 and give a mortgage for the balance; let the place be varied in the character of its soil, and as pleasant and attractive as possible; let there be plenty of good water, and a little stream if possible; a small pond, and a grove of shade trees and other natural advantages and natural beauties, if such can be found. If there are fruit trees, strawberry beds, &c., upon the place, so much the better; if not, let the cheapness of the land and its undeveloped natural advantages decide you; send your family to this place (provided, always, your wife takes a fancy to go); hire a gardener and farmer who understands his business, and pay him two-thirds the ordinary salary, with the addition of five per cent. of all the *cash* proceeds of the place he can obtain, by sending to market the produce of the place, in order to make him work and contrive how he can best and quickest make a fair salary. Keep horses, cows, hens, ducks, pigs; raise a great variety of vegetables; have an ice house, if you can get ice; and now let us see where you are. Are you not *independent?*

Milk, eggs, butter, and fresh, sweet vegetables are luxuries in town—and these you will have in abundance at the first cost of raising them, for you pay your farmer no five per cent. on these. Your family can have a horse and carriage to ride with—a luxury you seldom dare to indulge in when in town. Your house-rent is cheap, and if the farm does not *pay* in $400 per year, you still will have $400 or $500 left of your ordinary expenditures for living to lay by, or pay off the mortgage, or improve the farm. If you have no fruit on the farm, you may have plenty of it by planting trees, in three or four years; apples, pears, peaches, grapes, strawberries, raspberries, &c., enough to eat freely, and to sell to profit — Your family get fresh air, pure water, plenty of exercise, and live in a simple and unexpensive manner, free from many of the evils of a great city. You may combine with this the advantages of good schools, churches, and pleasant society; and may let your family go to town often enough to keep the city polish from wearing entirely off. As for yourself, the pleasure of visiting your place two or three times a week, or oftener if convenient, and spending the Sabbath in the country, will more than repay you for the inconveniences of even a partial separation from your family, should that be necessary. You will have little trouble about the working of your place if you give your farmer a per centage on sales, for I have tried the plan and know how it works. Only remember this—get a good man, and one who thoroughly understands his business.

Now where are you? Are you not independent? If you die, and keep up the life insurance (which will cost you less than $100 per year), you will leave your family $5,000 in cash and the farm, to say nothing of your business. If you put all your fruit and best improvements on one side, or one-half of your farm, your heirs can sell off one-half the farm and pay the mortgage if it is not paid, and have the best half of the farm, and all the cash left. If you have no sons, and your wife is not skilled in business, that would be the better plan. Then, with a neat house and a good garden, plenty of fruit, a cow, a pig, poultry, a horse and carriage, and the income of $5,000, how comfortably the family could live, *at home*, as long as they should survive. And all this can be done for $2,000 to $2,200. There are a hundred other suggestions which rise to my mind, in connection with this subject, but I will not write them out now. They will occur to every reader.

Why, then, toiler in the city, wait till you acquire a fortune of $20,000 or $50,000 before you resolve to become independent and make your family so? Why not look out for a home in the country and make yourself independent, with $2,000, as soon as possible. I know of no other way that you can do it so easily and so certainly. It is a great deal better than going to California in search of gold.

SPIRIT OF THE AGRICULTURAL PRESS.

ON BEAUTIFYING THE FARM.

Never was truer thought uttered, than this of the *American Agriculturist*, that "*the time has fully come when our farms should cease to be regarded as mere manufactories of food and the raw material of clothing.*" It is commenting on an article in the November number of the *Horticulturist* upon "Parks and Pleasure Grounds for the Farmer," and says further,—"It is one of the great wants of our times that these farms should be turned into attractive Christian homes, where men and women shall not only work, eat, sleep and die, but where they shall enjoy life, as social and religious beings, and by loving and cultivating the good and the beautiful on earth, be fitted for the paradise of God. A man should no longer be considered a good citizen, who does not plant trees enough, and give time and money enough, to make his homestead so attractive that it shall retain some of his children to fill his place when he is gone. Multitudes of these old homesteads in the north are forsaken, mainly because there was nothing but the sternest utility about them, in the whole circle of the year."

Cannot those ingenious "statistical men," who tell us what the effect of occupation is upon the mind and duration of life, tell us, also, what the effect is of the *agreeable* and *beautiful* upon the temperament and longevity of the race? It is a common opinion that country life is largely conducive to health and happiness, and consequently to vigorous old age. But these cannot be imputed wholly to exercise in the open air, for many other classes enjoy the same opportunities, and fail to reach as many years as the farmer. Is it not fair, then, to suppose that the constant impression upon the mind of the wise and beneficent provision in the changes of the seasons, in their varied aspects, the ever-varying landscape, occasioned by heat and rain and frost, the wonderful instincts of animals, of birds, and insects, coming to the view of the farmer as they constantly do, have a healing and saving influence upon his mind? What orator ever forgot the inspirations he found in nature's grand cathedral, the forest, or the lessons in the stones or running brooks that were familiar to his youthful rambles? The mind becomes deeply imbued by the scenes familiar to it in early life. If those scenes represent violence and vice, the home and habits of bandits and freebooters, the crop of ideas which follow will be quite likely to partake of the character of those scenes. On the other hand, if the home of the farmer is surrounded by something of the tasteful and beautiful, in the way of lawns, groups of trees, shrubbery, and occasional paths, borders and flowers, kindred sentiments will be established in the minds of those mingling in such scenes, will grace and dignify the fireside, the pulpit, the bar, or Senate chamber in maturer life, and awake in others a higher appreciation of the beautiful.

There is a taste for the beautiful in every cultivated mind. The farmer shows it when he turns out his noble pair of Devons, or his Jersey heifers to the wondering gaze of his neighbors; or points out the graceful curves of his polished plowshare,or the exact lines of his recently-turned furrows. His wife and daughters manifest their taste of the beautiful in the neat lawn, 40 by 80 feet in front of the house, the groups of maples and birches, the shrubs and flowers, and the noble elm standing in the centre as the presiding genius of the whole. A few flowers in the window, a rose-bush under it, or the Ampelopsis or Bignonia over the porch attract and gladden the heart of the traveller, so that he goes on his way with kindly thoughts of his own, and of that home where he saw the evidences of a love for the beautiful. Then, where there is land enough, why not extend these ideas, and let them expand over several acres and call them a park, where the best sheep and cows and calves may graze,—and which will afford equal profit with any other acres on the farm,—where friends may visit, and children stroll and store up unnumbered ideas of the useful and the beautiful?

It may be urged that there is no call for the farmer to plant forest trees and form parks, either to please the eye or as a protection from sun and wind. But the objection would be without force in thousands of cases. A baleful "spirit of utility,"—a spirit without foresight or judgment, has swept away the finest forests in the land. The "Capotoline Hill" at Washington, was covered with noble and majestic oaks when Washington planned the city, and when the foundations of the Capitol were begun. But ruthless hands were laid upon them, and with blind fatuity, one after another, their towering heads were levelled in the dust, and now it will require a hundred years, together with a liberal portion of the treasure of the nation, to remedy the evil. So on most of our farms, the beautiful forest trees were all cut where the buildings were to be erected, and in their vicinity, leaving it open, bleak, and exposed to the full play of the elements; and this is the situation of thousands of our New England homesteads now. Is there not, then, good reason to introduce about these homesteads, something more of the useful and the beautiful combined.

THINNING FORESTS.

This subject is the natural corollary of the one just discussed. "A New Englander, near Claremont, N. H." has published in the *Germantown Telegraph* an article on the subject of thinning forest trees, which we think ought to be placed on record, and give it below.

MR. FREAR:—The question is often asked, whether wood lots should be thinned? For my own part, I am now convinced, after no limited reflection and observation, that they should not. I have seen a growth of wood, natural growth I mean, greatly and irreparably injured by it: and I can see no reason why our grain and grass crops should not be sown thin, or thinned out by hand, as well as our woodland crops. The soil is generally found competent to support all that it puts forth, in the case of this class of vegetation, and the heaviest, tallest, and most majestic growth of wood and timber is always to be found in new countries where the axe and smoke of civilized man have never been known. There seems, indeed, to be something contaminating and stultifying in his very presence to the beautiful productions of the natural forest. I have spent many a happy and laborious winter in the dim old woods of Maine, which may well appropriate to itself the poetic appellation of

"Land of the forest and the rock,"

and along the timber-tenanted shores of the legended Songo and broad Sebago, where the tall pine, peering to heaven,

"Fit for the mast of some tall admiral,"

and the majestic oak, made the wilderness which had nourished them for centuries, tremble as they fell before the logger's glittering axe; and although I have seen the trees standing so compactly as to prohibit the passage of sleds, I have found that this closeness of growth was not, to all appearance, detrimental, but rather the reverse.

One thing impresses itself upon the mind of the beholder, as rather remarkable. I allude to the almost total absence of dead or decayed limbs on the trees constituting these vast primeval forests. When a tree has completed its period of growth, and lived perhaps for half a dozen centuries, it dies, decays and falls; but the younger and healthier trees are straight, sound in all their limbs, and furnished with a most beautiful profusion of foliage, and of the deepest green. I have frequently passed through clumps of spruce, occupying acres, and all the trees of more than medium size, where it was impossible to proceed more than a few yards in a right line, the denseness of the growth necessitating and literally compelling frequent divergencies to avoid the trees. Yet here had been no trimming or lopping—the growth was as nature produced it, sound and healthy, and to all appearances to remain so for, I have no doubt, hundreds of years to come. But as soon as man commences his presumptuous work of assisting nature in this department, she ceases, in a great measure, to assist herself; becomes diseased, with a morbid lassitude pervading all her system, and finally yields to the destroyer, whose kindness to her is death.

A NEW ENGLANDER.

Near Claremont, N. H., Nov. 22, 1854.

GRINDING MILLS.—An improvement in mills for grinding feed has been made by Amory Felton, of Troy, N. Y., which consists in the employment or use of a corrugated cylinder and a concave and cap having spiral flanches and reciprocating teeth. The grain to be ground is placed in a hopper above the corrugated cylinder, and is made to rotate, when the grain passes between the concave described and the cylinder, and is crushed between the spiral flanches of the concave and the corrugations on the cylinders, and is then discharged, ground, by an opening in the end of the concave. This mill is now in use, and grinds four bushels per hour by one horse power.

Scientific American.

For the New England Farmer.

MONTHLY FARMER FOR DECEMBER.

The title page and Index remind us that another volume is completed—another year gone. Years seem short as we grow old. When young, we hurry up time; when old, time hurries us. How slowly comes Twenty-one; how rapidly Forty-two! Yet, instead of growing dizzy or stupid as the "wheels of time fly swifter round," the better course is to "work, for the night cometh," and instead of surrendering at the first summons of old age, bravely reply, like good soldiers,—"Come, and take us." Is it not as much the duty of the old to preserve, as it is of the young to improve the mind? "Old men for counsel," is the dictate of prudence. The young and inexperienced need this, and they look to the pages of the *Farmer* for it. But they will not find it there, if old men, who naturally love quietude and repose, do not, like old Solomon, seek out and set in order, the proverbs of their experience. It is a common complaint that the sons of farmers are not satisfied with the business of their fathers. Is this strange? Think of the *models* that are placed before them. Plutarch's Lives! Any book of biography! Kings, Generals, Congressmen, Merchant Princes,—what "copies" these for the farmer's boy! "BIOGRAPHY OF AMERICAN FARMERS, Vol. 1." Although I have not yet seen the Prospectus of this work, I have seen in the *Farmer* of this year what I hope will prove to be the germs of such a production: sketch of the life of Richard Bagg, and of other friends of agriculture, and very brief notices of several men in connection with statements of their farms. Here, it strikes me, is a fine field for old farmers. You may not have marched an army over the burning sands of Africa, nor been Governor, nor made a fortune by trafficking with Indians or Chinese, but you have a good home, have raised up and educated a family, and therefore, must have done something;—what have you done? Shall not the word Biography or Autobiography, have a place in the index to the next volume of the *New England Farmer?*

"*Index to the Sixth Volume.*"—It is a laborious job to make out an index to such a volume as the twelve monthly numbers of the *Farmer* make.—And the person who made the one before us, probably feels that no one ought to find any fault with it. But he will allow me to suggest what, for my use, would be an improvement. I should prefer to have every thing that relates to a few of the leading subjects, placed under their respective heads, so that when investigating any particular subject, I should find in the index reference to every thing in the volume relating thereto. Taking "Manures," for instance, I would like to find under that word, every thing that is mentioned in the volume as useful for this purpose. Looking at the references under this word in the Index, my first thought was that justice had not been done to the *Farmer*, as there are references to only nineteen pages, while the subject is discussed in nearer one hundred different places, all of which, it is true, may be in the index, but placed under so many heads, as to be liable to be overlooked, by one who has but a single evening to study manures. The objection to this system of classification, that it requires much repetition, is in my mind far outweighed by the fact of its convenience.

"*Notice.*"—Hereafter we are to have no advertisements in the *Farmer*, and it it to be stitched in a neat cover. Thank you, Mr. Publisher, for that; it will keep our numbers clean, inside and out, for the binder.

"*Maturing Plants.*"—Commencement of a reply to a criticism on an article with this heading that was published some time since in the *Farmer*. As there is quite a scientific "snap" to these articles, we shall read them carefully, and understand them if we can.

"*Is Farming Respectable?*"—Well, now, that is right to the "pint." If it is not respectable, old Massachusetts is a real know-nothing, for electing a farmer Lieut. Governor.

"*Guano.*"—Experiments in Orford, N. H., from which it is inferred that "those who covered or applied it while wet, received benefit; those who used it dry, had little."

"*Inquiry and Observation,*" must excite in every reader a determination to look closer into the things about him, and to think deeper and more reverently.

But I must pass over the articles—"A Good Plow," "Agricultural Value of Railroads," "New System of Preserving Meat," a chapter on "Feeding Animals," "Wheat Trade" of England, and several others, to ask the attention of all concerned to the suggestions on "Fair Premiums." To award a premium on agricultural implements to the Railroad Company that transported them to the place of exhibition, would probably surprise everybody; yet what superior claim has the mere dealer in such articles?

"*Improved Windmills.*"—A few such dry summers as the last, will make a demand for windmills or some other pumping power.

"*Forest Trees.*"—Two articles on saving and sowing the seeds of forest trees.

"*United States Cattle Show.*"—Full account of proceedings and Premiums.

"Grass Land—Grass Seed," "What Boston has done for Agriculture," "Fall Plowing," "Gypsum," "Emery's Saw Mill," and "Best Method of Getting Corn and Hay" on wet land, bring us to an account of the wonderful effects of "Deep Plowing and Plastering" in Michigan. There is so great difference between the soil of Michigan and of Massachusetts, that an experiment in one State may be of little value as a guide in the other. I have seen herdsgrass growing rank and tall from the earth thrown up in digging a well in Michigan, while that grass grew but poorly, if at all, in the surface soil that would yield fifteen or twenty bushels of wheat per acre without manure. And plaster has an effect there very different from what it has here. Why and how it is I do not know, and therefore will not undertake to say.

Fruit.—Notice of fine apples from Canada. New mode of grafting suckers of Plum, with a recommendation of the Shad Bush as stocks for the pear. In the *Farmer* for May, 1853, is an article by Mr. Goodrich, of Burlington, Vt., which to my mind conclusively demonstrates the fact that the "whole family of thorns, mountain ash, and shadberry" are utterly worthless for pear-stocks. Has "Far East" read that article, and what Mr. Burt says to the same effect, page 204, same volume? How to manage "Cuttings of Fruit Trees." To manure "The Blackberry." Two articles on "Grapes." A READER.

Winchester, Dec., 1854.

IMPORTATION OF ENGLISH CATTLE INTO THE UNITED STATES.

The importations into the country have become quite frequent and important. A few years ago the taste ran in a different direction, and blood horses were all the go. Priam, Glencoe, Monarch, and horses of that stamp, were purchased in England at enormous prices—15,000 or 16,000 dollars being paid for a single animal; but a fondness for racing has diminished, not only in the Northern but also in Southern States, and the importation of well-bred cattle, sheep and hogs, has been pursued with more ardor. Whoever will compare our common native sheep with the improved breeds, will see at once an immense difference between them, and yet the care, attention and expense required to raise the former, is no more than for those of higher grade. One is an ornament to lawns, an object of interest; the other almost a disgrace to the poorest farms. The profit which attends the raising of higher breeds is far greater, and it ever increases the pleasure derived from farming to have the stock of a superior quality.

In a late celebration attended by breeders of fine sheep, it was stated that those from the United States were the purchasers in the English markets of the best animals. The influence of previous importations, and of those going on, must be extensively felt in the production of fine wool in the United States, and the manufacture of excellent woolen fabrics. The vast extent of grazing land we possess in the northern and middle States, makes the production of wool one of the most important objects of industry. The Southern States, except on a few of the mountains, are not suited for this business. The entire coast is flat and sandy, from Virginia to Texas, and from the shore to the mountain region, for the width of 100 to 200 miles. Over this extensive surface there is no pasturage for animals, which are fed on fodder and imported hay. The mountain region south of Virginia affords some pasturage, which enterprising citizens are engaged in devoting to the raising of sheep. They prefer breeds from Spain, owing to their supposed adaptedness to a warm climate. It was supposed that Illinois, which has a level lay of the land, was not suited to this purpose; but it was ascertained that sheep which had reached their growth in the Eastern States, advanced materially in size and weight from being introduced to rich pastures on the prairies. The wool became coarser, but it increased in quantity.

This important interest is now under full way in most of the States which are adapted to the purpose, and it will make a great impression upon the prosperity of the country. It is, however, in the breed of fine cattle that we are likely most to excel. Gentlemen having country-seats have shown a laudable desire to import the best stock, on the principle that a few good animals, in a country where labor is dear, are better than numerous poor ones, and that animals of fine shape and color are objects of interest in their lawns. The county of Westchester, especially, has become eminent for its numerous and superior breeds of imported stock. Among the earliest importations into that county were some noble cattle from Holland. They were beautiful in shape, large, and good milkers. These have been crossed with the Durham, and a breed known as Dutch and Durham is scattered over the county. Old Mr. Bathgate, who lives there, and who has been engaged in this business for half a century, speaks of them as being among the best for milking. Stock of the Alderney, Ayrshire and Devon breeds, have been imported by other gentlemen; but importations of the Durham have been most numerous, and, where the pasturage is good, they are considered the best stock, not only for the dairy, but also for the shambles. Col. Morris, the president of the State Agricultural Society, who resides there, has been very active in the business of importing good stock into the country. His sales of cattle have attracted a great concourse of people, and large prices have been paid.

It would, no doubt, very much advance the interest which gentlemen feel in this subject, if annual sales were made of improved stock, at some convenient locality near the city, open for all sellers. They need some mode of disposing of choice animals which will attract competition, and enable them to dispose of their surplus stock without disadvantage. In England, the most useful of the nobility have for years been engaged in attempts to improve the breed of cattle, in which a degree of perfection has been reached that can hardly be excelled. They look upon fine stock as the best ornaments of their grounds. Many citizens of public spirit in the United States have imitated this excellent example, and conferred very great benefit upon the country by their intelligence and zeal in this service.—*N. Y. Jour. of Com.*

For the New England Farmer.

MACHINE FOR PEELING WILLOW.

Mr. Brown :—Those of your numerous readers who are engaged, or contemplate engaging in the cultivation of the *basket willow*, will be pleased to learn that there is a machine for peeling the willow. Mr. George F. Colby, of Jamesville, Vt., the inventor, has had a machine made by which its merits have been fully tested; and all who have witnessed its operation, agree that it does the work to perfection and with the greatest facility, and believe it to be one of the greatest labor-saving machines of the age. This, I believe, is the first machine ever invented for the purpose, either in this or the old country, and must add vastly to the cultivation of the article in this country. Mr. C., who has been successfully engaged in the cultivation of the willow for several years, estimates the cost of peeling, in the ordinary way, at from $80 to $120 per acre, or at $40 per ton, while he claims that his machine, which requires but one horse power, with two men, will do the same work within at least from two to three days, at the rate of one ton per day. Mr. C. has taken measures to secure a patent.

Bolton, Vt., Dec., 1854. J. R. Jewell.

CYCLE OF GOOD AND BAD CROPS.

The article given below, from a recent number of the *Scotsman*, will be read with interest by every inquiring, investigating farmer. The theories advanced are new; and as yet are only theories, but we must confess they have some plausibility. It will be seen that for thirty-seven years past, there have been successive periods of four and five years of alternate good and bad crops, and that science sheds a glimmering ray of light upon the cause of these periodic variations. It will also be seen, that, if the theory proposed prove a correct one, we have just entered upon a four or five years course of poor crops generally over the globe ; and consequently a season of corresponding high prices. The article is as follows :

The "uncertainty of the weather" has been a subject of complaint to the husbandman from time immemorial. Science has shown, however that law and order prevail in many phenomena once deemed to be under the blind dominion of chance, and ingenious men have indulged the hope that a key might yet be found to the irregularity of the seasons—not that we shall be able to prognosticate whether any particular day or week will be foul or fair, but that we may have rational grounds for expecting a good season or a bad one, or a series of good or bad seasons. Intelligent farmers generally believe that a course of abundant crops is pretty sure to be followed by a course of deficient ones; but whether the cycle of good and bad crops is of a determinate or a variable length, and if determinate, how many years are required to complete it, are points upon which opinions differ widely, and certainty is perhaps despaired of.

A paper read a few days ago by M. Becquerel to the Academy of Sciences, on the culture of wheat in France, supplies statistical facts of some value bearing on this subject. They show that there is a periodicity in the recurrence of good and bad harvests ; that five or six years of abundance, and five or six of scarcity, follow each other pretty regularly. From want of capital and enterprise, and good means of internal communication, the French are more dependent on their own harvests than we are in this country, and the difference between a good and a bad year telling more strongly on their markets, serves better to test the influence of the seasons. M. Becquerel quotes from Count Hugo the following table of the average price of wheat for all France :

	Francs per hect.	Shillings per qr.
1816 to 1821—period of scarcity	23,66	54s. 5d.
1822 to 1827—period of abundance	15,80	36s. 4d.
1828 to 1832—period of scarcity	22,00	50s. 7d.
1833 to 1837—period of abundance	16,16	37s. 2d.
1838 to 1842—mixed period	20.31	46s. 8d.
1843 to 1847—period of scarcity	25,68	59s. 0d.
1848 to 1852—period of abundance	16,68	88s. 4d.

We arrive at a similar result by comparing the imports and exports of wheat, and taking the excess of the one over the other :

			Hectolitres.
Scarcity	1816 to 1821	Excess of Imports	6.247,000
Plenty	1822 to 1827	“ Exports	1,258,000
Scarcity	1828 to 1832	“ Imports	9,528,000
Plenty	1833 to 1837	“ Exports	944,000
Mixed	1838 to 1842	“ Imports	1,126,000
Scarcity	1843 to 1847	“ Imports	18,697,000
Plenty	1848 to 1852	“ Exports	18,188,000

The hectolitre (26½ gallons wine measure,) contains 22 imperial gallons, or three hectolitres are a trifle more than a quarter, (480 lbs.) It will be observed that the importation of wheat in France, in years of scarcity, is very small when compared with ours. Thus, in the period of 1843 to 1847, while wheat averaged 59s.—a very high price in that country—the whole imports in the five years were only 20,161,000 hectolitres, from which, deducting 1,164,000 of exports, there remained for consumption only 18,697,000, or 6,400,000 qrs. In the period of scarcity, from 1816 to 1821, when the price was 54s. 5d., the imports were only 6,247,000 hectolitres in six years, or about 345,000 qrs. annually.

The five years from 1847 to 1852 were years of abundance both in France and Britain. Supposing, then, that the change takes place quinquennially, we should now be at the commencement of a period of scarcity, and that the present year fulfils this character in manifest from the state of the markets on both sides of the Channel. The French average for the first two weeks of November, as given in the *Moniteur* a few days ago, was 29.97 per hect., or 68s. 11d. per qr.—a famine price in France; and the British average for the whole of November was 71s. 1d., making rather severe dearth. It is, therefore, a question of some importance, whether we are to regard the present deficient crop as a pure "casualty," an evil which an opposite casualty the next year's abundance may redeem, or as the first of a series of bad crops. In our opinion, the hypothesis of a five years' cycle, embracing the latter conclusion, though not established beyond challenge, has a sufficient probability to render it worthy of entering into the calculations of farmers, corn merchants, contractors for public works, and even ministers of state.

A hypothesis offered to explain anomalous or seemingly discordant physical facts is more readily accepted when we trace in it the operation of some physical cause. In the *Scotsman* of the 6th of September, 1845, we gave an account of a memoir published by Schwabe, a German astronomer, on the spots of the sun, in which he maintained their periodicity, that they increased for a certain term, then diminished for an equal term, and that the interval between the maximum and minimum was about five years, so that the cycle was completed in about ten. This conclusion rested on the observations of 18 years, which (as Colonel Sabine informed the British Association at Belfast) have been since extended to twenty-six years, and with the same result. Now, as the light and heat of the sun are obviously essential to the success of grain crops, it occurred to Gautier, a French or Swiss man of science, to compare Schwabe's cycle of the solar spots with the results of the harvests in France, as shown by the price of corn; and he found that, taking the years in groups, to eliminate accidental influences, those in which the sun had few or no spots coincided with years of abundance, and those in which the spots were numerous with years of scarcity. We have here, then, a glimpse of a physical cause to account for these alternating periods of scarcity and plenty, which experience has forced upon the attention of our farmers. It is true that the spots of the sun cover but a very small portion of his surface at any time, but the decrement of heat in a bad year is also small compared with the whole quantity which the earth receives from the sun; and it is not improbable that, besides causing a direct loss of light and heat proportioned to their size, spots when abundant may indicate a general enfeeblement of the heating and illuminating power of the whole surface of the sun.

The progress of science is constantly adding to our knowledge of the latent ties which connect the most distant parts of nature. Those minute deviations from the normal position of the magnetic needle, called its diurnal variation, were discovered a hundred years ago, and gave plain indications of solar influence. It was only known within these few years that these variations were themselves subject to variation—were greater in some years than in others—and that another class of phenomena, called "magnetic storms," sudden and seemingly unaccountable disturbances of the needle, disclosed themselves. It is now found that these are periodical also. To use the words of Colonel Sabine, "there is a periodical variation or inequality affecting alike the magnitude of the diurnal variation, and the magnitude and frequency of the disturbances of storms, and the cycle or period of the inequality appears to extend about ten of our years, the maximum and minimum being separated by an interval of about five years." Perhaps by-and-by the hopes and prospects of the husbandman may be read in the vibrations of the compass.

TO PROMOTE THE HEALTH OF CATTLE.

Mix occasionally one part of salt with four, five or six parts of wood ashes, and give the mixture to different kinds of stock, summer and winter. It promotes their appetites and tends to keep them in a healthy condition. It is said to be good against bots in horses, murrain in cattle, and rot in sheep.

Horse-radish root is valuable for cattle. It creates an appetite, and is good for various diseases. Some give it to any animal that is unwell. It is good for oxen troubled with the heat. If animals will not eat it voluntarily, cut it up fine and mix it with potatoes or meal.

Feed all animals regularly. They not only look for their food at the usual time, but the stomach indicates the want at the stated period. Therefore feed morning, noon and evening, as near the same time as possible.

Guard against the wide and injurious extremes of satiating with excess and starving with want. Food should be of a suitable quality, and proportioned to the growth and fattening of animals, to their production in young, and milk, and to their labor or exercise. Animals that labor need far more food, and that which is far more nutritious, than those that are idle.

In dry time see that the animals have a good supply of pure water. When the fountains are low, they drink the drainings of fountains, streams, and passages of water, which are unwholesome.

If barns and stables are very tight and warm, ventilate in mild weather, even in winter.

For the New England Farmer.

OTHER PEOPLES' BUSINESS.

BY HENRY F. FRENCH.

There is an old saying, that half the people in the world have no idea how the other half live. Perhaps we should not get far out of the way, were we to say, that half the world have very little idea how they live themselves!

Everybody knows how the *minister* lives—that he has a salary of so many dollars, upon which he *must* live, and in respectable style, such as may do credit to his parishioners, who of course do not want to be disgraced in their character for liberality, by having his coat out at the elbows. Everybody knows how most men who have salaries live—just up to their incomes, and hard work at that. But every body does *not* know how much it costs a farmer to live, and least of all does the farmer have any idea of how much he really expends, not in money, but in money's worth, of those articles for which others pay money. It is very easy, again, to learn how much is produced of the great staple articles of export, as of cotton, and of those produced on large plantations, as sugar and rice. The article *hay*, which is of far more value than the cotton crop, is hardly named as a great staple.—The annual growth of live stock is stated at a value of forty millions of dollars above that of the cotton crop, while the sugar crop—maple sugar and all—is not a *tenth part* the value of the annual crop of wheat. So with regard to the amount produced by the *labor at home* of men, women and children, not connected with farm labor, though performed by farmers and their families.

This train of thought was suggested by some facts which came under observation a few days ago. Upon a hearing before the road commissioners of Rockingham county, on a petition to lay out a new highway in the towns of Candia and Deerfield, it became necessary to investigate the business of those towns, to ascertain what occasion they had for more roads to market. The facts, which will be given, were stated by witnesses under oath, and were not controverted. Both the towns named are usually called mere agricultural towns. Both together, they have about thirty-five hundred inhabitants, and pay just eight dollars eighty-two cents of every thousand dollars of our State tax, or in other words, in wealth, they compose less than *nine one-thousandths* of the value of the State of New Hampshire. The first remarkable development was, that this agricultural community of the two towns is every year buying and paying for *two thousand barrels of flour* and *seven thousand bushels* of Indian corn and meal, and about seventy barrels of salt pork! These facts appeared by the way-bills upon the railroad, and were verified by traders of the towns, who bought and sold the articles. Horace Greeley was never more puzzled by the balance of trade, than were we at this intelligence, and, for the moment, we were inclined to lay aside our free trade notions, and go in for a tariff on corn and pigs, to be established by the New Hampshire General Court, for protection against Massachusetts and New York; for the evidence showed that we are open to encroachments in both directions, the flour and corn coming in, sometimes by way of Ogdensburg, N. Y., and the pork from Boston. However, those who buy, must, in the long run, pay, or they cannot get trusted, and as these towns gave every outward sign of prosperity, we proceed to inquire how they got their money to pay with. We found several persons engaged in making shoes. They are generally traders, or, as we call them, store-keepers. They buy the stock, cut it, and send it out to be *fitted*. This is done by women principally, and consists in binding and sewing the upper part of the shoe preparatory to putting on the sole. After fitting they are returned to the store, and again sent out to be *made*, or have the sole put on, and are again returned, and are finished and packed away in boxes, called *cases*, and are ready for market.

It was proved that about *two hundred and eighty-eight thousand* dollars worth of shoes are made yearly, in these two towns—in this less than a hundredth part of New Hampshire, and that not less than forty per cent. of this amount, or one hundred and fifteen thousand dollars, is paid for the *labor*. This is nearly thirty dollars for every person, from the baby of a day old to that venerable individual called the "oldest inhabitant"—every person, sick and well, lame and lazy, poor and rich!

Now, we see how those towns buy thirty thousand dollars worth of grain and flour a year, besides consuming their own produce! Yet these, as has been said, are farming towns, and although just now their dairies are small, and their farming operations not extensive, yet they have *the land behind them, and nobody can be their master.* If the price for shoes does not suit them, there is no need of a strike for higher wages—no need of mobs and violence. They are independent, because they can turn to their mother earth, whose beautiful bosom is bared for their support. There is a dangerous element in all large manufacturing establishments, in all factory towns and villages. God grant it may never work out, in this country, what has happened in England and elsewhere abroad. The danger is that wealth, associated wealth, may crush out individual independence. In *home manufactures*, like this alluded to, there can be, for the reasons suggested, no such danger.

And, by the way, there is fair opportunity to test the accuracy of the census tables, to some extent, by the facts before us. The census of 1850 gives the value of "home manufactures," for this county as $36,330; nor do we find any other item under which this matter of labor on shoes at home can be comprehended in the census tables. Now the population of this county is set down, in the same census, at 49,194, and if the "*home manufactures*" of the rest of the county are in the same proportion to the population as those of Candia and Deerfield, they would amount to about *one million six hundred thousand*, instead of the *thirty-six thousand* dollars credited to us! The former amount is undoubtedly much nearer to the truth than the latter. Whatever the result might be, on investigation, it is certain that the towns upon which the calculations are based are not generally reputed to be engaged in manufactures above the average of their neighbors.

It might be well for gentlemen at the South and West, who wonder how the people can live in New England, to inquire enough into our affairs to relieve themselves of any unhappiness on our account. It might be well, also, when the next census is taken, to have it done in such a manner as to furnish some indication, at least, of the resources of New England, as well as the rest of the country. There seems to have been no attempt to ascertain the manufactures of any part of the United States, except of "home-made" articles, and what that item includes is not very manifest.

In this view, we have something to do with "other people's business."

Exeter, N. H. Dec. 12, 1854.

ORCHARDS, APPLES, AND THE MARKET.

"David, I am going to quit the nursery business. In twenty-one years fruit will be a drug in New York city. Why, everybody is setting out orchards. Just look around this neighborhood. There is deacon Jones has just set out 500 trees; Tom Smith 400, and his brother Jim will have 1000 next spring, and soon, at that rate, all over the country; grafted fruit, too, none of it for cider. Now what do you suppose is to become of all these apples? I tell you what it is, David, we must wind up the nursery business, or we shall break flat. Everybody is going crazy about fruit. Everybody will grow it, but nobody buy it, a few years hence."

This prognostication was made more than twenty years ago, by a sensible man engaged in propagating choice fruits for sale, in Central New York, and no doubt the speaker honestly believed the days of the nurseryman were well nigh numbered. Brother David, however, was of a different opinion. He did not believe it was so easy to overstock the market with such fruit as no other than American soil and climate can produce. He did not believe ere twenty years' time would elapse, everybody would have an orchard, the products of which would be so unsalable, and the business so unprofitable, the owner could have no desire to plant more, or better, or newer varieties of trees; consequently he urged that the business should be perseveringly continued until the dawning of the evil day was more visible in the horizon.

What has been the result? A sale of 40,000 apples trees and 7,000 of other fruits, during the planting season of last year, and the prospect for the next equally good. The very men who had planted 500, have increased 1,000, and some of them have doubled that tenfold; and yet the market is now better than it was ever before, for all the choice varieties of the product of orchard, vineyard, or garden. The market is not glutted, nor can it be while millions of mouths continually water for the luscious fruits which contrast so advantageously with the sour crabs, "five to a pint," which filled the market twenty years ago. The market cannot be glutted with such fruit as the Newtown pippins, Roxbury russets, Rhode Island greenings, Baldwins, Bellefleur, Swaar, Domine, and a great variety of other excellent winter keeping apples; while the luxury-loving mouths of old England are within two weeks, (we have done counting distances by miles,) of the fruit-bearing hills of New England. Nay, not only New England and New York, but the ever bearing trees of the rich plains of that once far away western wild, known in our boyhood as New Connecticut. But still the market is not glutted, nor will it be, though all Ohio, Michigan, Indiana, Illinois and Wisconsin, shall pour in their golden treasures of golden pippins from their unbounded plains of the richest fruit bearing land the world ever saw, while that same world full of people possess the taste they now do for choice, delicious fruits.

Our advice, therefore, is, as it has always been, to every man who owns an acre of land—plant trees. Don't be afraid of overstocking the market with any kind of fruit, except such as your fathers used to grow, and some of you still perpetuate; because the refined and improved tastes of the world demand, and will have, if it is procurable, the best that can be grown.

Since writing the above, we have met with the following item, illustrative of our remarks upon the fruit trade:—

Fruit Trade of Oswego—New York Apple Women.—It is estimated that nearly $40,000 will be circulated in this county this autumn, by speculators in fruit. Some 20,000 barrels of apples have already been purchased, and many of them shipped to New York. They were Spitzbergens and Greenings, and the price to the growers has averaged from $1 to $1.50 per barrel. The fruit of the entire county has been bought up, one firm in this city alone having contracted for about 8000 barrels of winter apples. Some of them which were bought for ten shillings, have already been sold in New York for $3.00.

An energetic and skilful business woman, who keeps a fruit stall in Fulton Market, was in town the other day, and bought 1000 barrels of apples, giving her check for the amount. She has made her fortune in the business, and will no doubt make $500 out of the operation. She bought a few barrels of choice pears here, at $11 per barrel. She will sell the same in New York for double the money. We cannot but recommend to the farmers to bestow more attention upon fruit-growing. It will at all times produce a golden harvest.—*Osweyo Journal.*

For the New England Farmer.

MATURING PLANTS.

[REPLY TO R. MC I.]

BY A. G. COMINGS.

Mr. McIntire further notices my article as follows:—"He asserts that those plants which produce seed the first year of their growth, and then die, draw away the substance of the roots to mature their seeds, and is the cause of their death Is this true, or do they die because they have fullfilled the law of their being? Are these [there] not perennial plants that produce and mature their seed from the first and many successive years from the same root?"

1. I will answer: first, as to the law of being of plants, that is part of the question. It has been supposed by many, like Mr. McIntire, that certain plants have a fixed time to live, however they may be treated, and that their death must come then, "as shure as fate." Certain bulbous rooted plants, as the onion, (and I think herd's-grass has the same habit,) form a bulb one year and produce seed the next. A new side bulb is formed on the year of seeding, and the seed-producing bulb dies with the production of seed. Yet the onion, if it does not mature the bulb the first year, will not produce good seed the second year. Put that idea up garret, and if you want to raise good onion seed, be sure you set the most perfect and ripe bulbs; for it is a law of such plants to depend for the accomplishment of the second year's work, (producing seed,) upon the capital accumulated the first year. Small bulbs, or small tap-roots, in a soil containing only a small amount of carbonaceous food, will produce but a small quantity of seed, and much of that will most likely be shrivelled and worthless. This fact is sustained by the experience of almost every farmer. The reason is evident.

We may also add, if it is so with bulbous and tap-rooted plants, how much more dependent upon the soil will be the fibrous-rooted plants, such as corn, wheat, rye, oats, &c. If I mistake not, none of these die at the root until they make the natural attempt to produce and mature seed. Yet, the biennial plants, whenever for any cause they are hurried to mature seed the first season, lose vitality at the root.

I have seen fields of clover used as pastures for cows, in which the clover roots lived many years. It would not be so, however, to use pastures as New England farmers generally do. (Of that I have not now time for further explanation.) Facts assure me that clover, in proper circumstances, will live many years. It will not, however, if it is allowed to drive its vital forces into the production of seed. Even the blossoms of clover contain a rich store of carbon and nitric acid, ready to supply the first want of the growing seed. If the root is exhausted of these substances in combination, die it must. No plant dies until the vital energies of the root are exhausted, in ordinary circumstances.

In the animal and in the vegetable kingdoms, the first great law of health and life is that the preservation of the vital energies preserves health and perpetuates life; while the only natural cause of death is the exhaustion of those vital forces. This great principle ought to be understood by every man, every woman and every child. It is applicable to all animal life, in man or brute, and is alike applicable to all vegetable life. It should be written where it would be read in the morning and in the evening, at the going out and at the coming in of every thinking, moving mortal. Life and health are more for our own keeping, than to be thrown into the care of doctors. Trees, grapes, shrubs, all may die from overbearing. It is the exhaustion of the vital energies. Death is not natural from any other cause. Man, the monarch of this mundane sphere, may overtax his energies for the reproduction of his species, or task himself in daily toil beyond his gifts, or neglect his regular supply of wholesome aliment, and he quickly brings the enginry of death thundering along his track. Not an eye grows dim, not a hair is blighted, not a flower fades, without a cause.

2. Mr. McIntire says, "Some farmers never plow in grain crops, and yet for many years raise good crops of corn and grain. How is this fact reconciled with his remarks about seed-producing crops exhausting the soil, and rendering it necessary to plow in grain crops?"

Answer. There were in my old arithmetic, which I used in the simple times of my boyhood, when I went to school at the old district schoolhouse which stood on the shady side of a New Hampshire hill, two very simple rules, called Addition and Subtraction. From the simple rules of that very simple old arithmetic I was simple enough to take the idea that a continual taking away, which was called subtraction, without any putting back, which would be called addition, would result in the exhastion of what there was at first; so that, after a while, when the trial should be made to take something away from nothing, the answer as given by the old school-master would be, "*You can't.*" Well, I fell into the simple idea of applying this to farming. So I would say to Mr. McIntire, if those farmers who have taken many good seed-crops from the same soil work only by the rule of subtraction in reference to the carbonaceous matter in the soil, the time must sooner or later come when the answer of their figuring will be "*You can't.*" Facts are as strong as figures.

Carbon comes not alone from the plowing in of green crops; but it all comes from green crops, originally. From deposits of meadow muck, or from animal excrements, the needed supply of old vegetable matter may be obtained, for small lots of ground. But why should the idea of manuring with green crops be so generally disregarded, when millions of acres of New England soil could thereby be made worth double what it now is, by a small outlay of expense. There is just the same sense in crop after crop, and then crop after crop, requiring carbon, without adopting a course of action to replemish the soil, that there would be in milking, milking, milking, day after day, week after week, the old brown cow, without giving her hay, grass, grain or roots, out of which to manufacture milk.

Certain it is that the husbandman has a right to put the atmosphere and the rain under the strict payment of tribute, for his profit, as well as the merchant or the miller, the sawyer or the sailor.

Right up here in this blue atmosphere, ready to be sucked into the solid matter of vegetable growth, is a mine of manure, more inexhaustible than the mines of Peruvian Islands, and more precious in value than mountains of gold. Every breathing

thing is contributing daily to increase it, and every plant sucks in a part of it. The great Creator has provided it, and it is open and free to every man who will accept the gift. "I don't believe in this idea that this vegetable matter ever goes down into the plant," says Grandfather Fogy; "I believe it all goes upwards in the plant, to the very extremities."

Well, now, just follow down that pine root, if you please, fifteen or twenty feet below where there is any other carbonaceous matetr. There it is, the same substance of those spreading limbs. The carbon has gone down there, and there it is, in the little fibres, creeping out this way—creeping out that way—creeping in every direction; and not a single soul in all the realm of reasonable existence, wise man or wizard, fanatic or fool, can screw his credulity up to the point of believing that those roots began to grow at the outer end, and then grew bigger and bigger, until they bit hold of each other and found a tree ready to be fathered by the fraternity. A. G. Comings.

New Hampshire.

FOR WHAT?

"Pa, did God make oysters?"

"Yes, my son."

"What for?"

"For us to eat."

"Well—but then, why do they have shells?"

This was a riddle to the little fellow—that oysters are made to be eaten, and yet were made with shells to prevent their being eaten. The same question of the intention of God in the creation of things, meet the student of Nature at almost every spot.

Every plant has been given some way of resisting injury. The blades of grass have saw-like margin. The leaves of corn are sharply edged with flint. The heads of grass are bearded. The kernels of all nuts are cased in by a shell to prevent their being destroyed. And yet there have been animals made for the destruction of all these. Cows with rough tongues for drawing grass into their mouths; horses with front teeth like shears for cutting it off; and sheep that chop it off with their under teeth against their upper gum, as a hatchet chops on a block. The teeth of squirrels are softest on the inside that they may wear sharp, and grow continually that they may not become too short. In this way, they are kept keen enough to go through the shell of a dried butternut, though it turns the edge of a knife. These self-sharpening teeth were surely made for chiselling the shells of nuts.

Every animal also has been given some means of defence. Horses have their teeth, and their hoofs and their speed. Oxen have their heels and their horns. Even sheep have their wool, and some speed, and can butt. Oysters and turtles their shells, and hedge-hogs their quills.

But for the destruction of these, there are the carniverous races, with claws to catch them, with tusks to transfix them, and with intestines that can be used for no other purpose than to digest their flesh.

Fish have been given an instinct of fear, and the use of fins with which to escape from the fish-hawk, and yet this bird was given a beak and talons, and must live by their destruction. It seems as though everything has been arranged to prevent death on the one hand, and yet to effect it on the other.—*Country Gentleman.*

HOME-MADE FURNITURE.

In the present pecuniary troubles many a wife finds an unusual necessity for practicing the strictest economy in household matters. Perhaps housekeeping is just to be commenced, and the great problem is, how much furniture and how many conveniences can we afford to procure. A little money must go as far as possible. Such would perhaps like to be initiated into the art of making cheap articles of furniture, both useful and ornamental. Many a neat and comfortable sofa or lounge, chair, stand, bed, book-shelves, &c., &c., have we seen, that cost its owners almost nothing.

A few boards, a little stuffing, and a few yards of shilling calico, put together with ingenuity, will give a tasteful and even elegant air to an otherwise bare and comfortless room. Most of the work we shall describe can be done by the females of the household, and we are sure will afford them more pleasure and comfort than the so-called "ornamental" worsted-work, bed-quilt piecing, &c. And in almost every family there is enough mechanical ingenuity among the boys, if not among the girls, to do the sawing and nailing.

A simple *Lounge* can be made by taking a broad, thick plank, strengthening it by nailing on cross pieces underneath and inserting four short legs; add a cushion filled with any material you wish, and add a valance of the same to conceal the legs. A back and either one or two ends may be added, if desired, by nailing on boards and cushioning them like the seat.

A *Cot Bedstead* many of you know how to make. Take four sticks about four feet long and three inches square, bore an inch hole through the middle of each, and put a round stick, six feet long, through, and pins through the ends; arrange these like the four legs of a saw horse; then, to form the sides, connect the head and foot posts by nailing a rod or strip of board on to their tops; take a piece of bagging 6 feet by 4, stretch it across and nail it firmly on to the side pieces. To strengthen this, make a narrow head board, nail on a small rod at each end, and bore holes in the side-pieces to receive them. By lifting this head-board out, the bedstead can at any time can be folded together and laid aside, if not wanted.

A convenient *Seat* for children, or for the garden, is made like the cot bedstead, with the head board omitted. The sticks for the seat should be one foot long; those for the legs, one foot six inches long. Bind a bit of carpeting for the seat. These are so light, and so easily folded and carried about with one hand as to be very convenient.

Hanging Book Shelves are another article of furniture easily made, and very convenient. For a small size, take three planed boards one-fourth of an inch thick, let the largest shelf be about 30 inches long by 8 wide, the others each one inch narrower and two inches shorter than the one below it. If convenient, paint, or oil and varnish them. Bore a gimlet hole in each of the four corners, take a stout cord and pass it down through one hole in each shelf, taking care that it is at the same corner of each, then pass it up through the remaining holes in the same end, making a knot in the cord under each shelf for it to rest upon. Pass a cord through the other end in the same manner, and tie the four ends of the cord together a foot and a half above the upper shelf, and hang it up.—*Ohio Cultivator.*

For the New England Farmer.

AN HOUR IN A GREAT BARN.

A little above the Concord station on the Fitchburg Railway, the traveller may see on the north side, at a distance of one-third of a mile, a most spacious barn, built by the present proprietor of the "Treasurer BARRET farm," S. P. WHEELER, Esq.

The building is one hundred and twenty-five feet in length by fifty-four in width. The mansion house was occupied by Harvard College during a portion of the revolution. What a space this barn would have furnished the students for recitation halls!

The barn has a projecting roof with water gutters, which not only make the entrance more comfortable, but protect the painted sides of the building from being scoured by the heavy rains. None can deny, too, but that the projecting roof combines a great deal of beauty with its utility.

The barn stands nearly east and west. The cow stable is on the south side, extending the whole length of the barn; there are several entrances—all the doors being upon wheels, and opening with a touch. The stable is also perfectly lighted by numerous windows, protected outside and in, by substantial guards. There was a pump by the door where I entered, which supplied water to the stock indoors, when desirable. One of Fay & Dakins' large bore wooden pumps was about being set in operation in the yard adjoining. Taking things as I saw them, the next thing was the scuttles; these were a foot wide, back of the trench, and hinged on to the platform; no manure falls upon the scuttles. They can be thrown over with ease with a hoe, and the stable frequently cleaned with very little labor. The scuttles shut down upon the bottom of the trench, leaving a large and sufficient passage for the escape of the urine.

The trench, the space between the scuttles and the platform under the cows, is eighteen inches wide and two and a half deep. Experiments prove this depth to be hardly enough.

The cows are all fastened in stanchions which were numbered. The stanchions were each supplied with a chained pin, are uniform, planed, and painted a dark lead color. The long stall for cows holds forty head; nearly this number looked sleek and happy in their comfortable quarters. The stable is fourteen feet in width, which includes a space three feet in width in front of the stanchions, forming also a desirable widening to the barn-floor when not in use for feeding. There is no "crib" or "rack" to be seen. The cattle eat from off the floor. The timber holding the foot of the stanchions prevents any hay from being drawn under their feet and wasted. As I saw no partitions between the cows, I asked the polite superintendent if the cows didn't hook one another; he assured me that they did not. The cows had been fed with husks, and a man took a rake, and with the back of it, slid the butts left into a pile as quick as he could walk the length of the floor. I saw a cutting machine and a mixing trough; but I made no inquiries about the feeding.

The barn-floor extends from end to end, where there are large doors upon the largest size rollers. The floor is planked lengthwise, and is very smooth and substantial. The posts, of which there are twenty-five in the floor, are eighteen feet in height. The scaffold, usually called the "rye-beams," is of uniform height with no *drops*, which some consider a gain in unloading hay. A room in the north side of the barn, opening into the floor, is devoted to meal, grain, and farm implements.

The carriage-house and horse-stables are all comprised in an L which opens upon the door-yard. Here is room to drive in several carriages and untackle, entirely protected from the weather. The common labor of "getting fixed off," must be almost wholly unknown with such conveniences.

I next went into the cellar; it is the whole size of the barn, and has an entrance (sliding-door) on the east side. The bottom is planked to prevent the escape of the liquid manure, as the cellar was dug in sand. The manure of course occupies the south side—an immense pile. It is occasionally levelled, and earth and absorbents thrown on to keep it in a good state. On the north side of the cellar were immense piles of roots, of which about a thousand bushels were raised the present season. This fact may have some connection with the soft skins of the animals above. The cellar is eleven feet in height, is walled in a very substantial manner, and perfectly lighted.

The outside of the barn is covered in the style known as the "Swiss fastening," that is, boards are put on extending from the brackets down, and then the joints covered with narrow, levelled strips, about two and a half inches wide. There is a large cupola on the ridge, and a number of smaller ones along on the roof at intervals half way down. The whole exterior is handsomely painted.

This, Mr. Editor, is a sketch of my observations during the hour I spent in this fine barn. I fear I have conveyed to your readers, a very inadequate idea of the whole. A good barn is a matter of so much consequence to the farmer, that I am interested in every attempt to improve the standard. There are several others in town; I hope to be able to report to you, perhaps more fully.

Respectfully yours,
WILLIAM D. BROWN.

Concord, Mass., 1854.

APPLES.—The crop of apples in New England this year, as it has been every even year since the Baldwin came into general cultivation, is too large for the demand, and the price has been drooping, until they are now dull in Boston at $1.25a$1.50 per barrel, and may be had delivered at the railroad depots, 30 or 40 miles from Boston, at 35 to 40 cents a bushel, or $1 without the barrel, the cost of the barrel and of transportation bringing them to about $1.25 to $1.50 on the railroad.

REMARKS.—We copy the above from the *Boston Daily Mail.* Good Baldwin apples are selling in Quincy Market, to-day, Nov. 10, for $1.50 to 2.00 a barrel, and the demand is equal to the supply. The sale is quick for good, well selected apples. We hope our friends will not find discouragement in this report. They can raise apples at a profit at 1$.00, barrel not included; and when they are lower than this, they can feed them to cattle and swine with as much profit as can be found in any other crop.

From the Ohio Farmer.

BRIEF PRACTICAL HINTS TO FARMERS.

Water for Stock—Summer Feed—Shade and Shelter—Warmth.

The Israelites had this proverb, "He that soweth sparingly, shall reap also sparingly, but he that soweth bountifully, shall reap also bountifully." This saying accorded so well with their sense of what is fitting and right, and was so often verified in their experience and observation, that it came to have an application much beyond the special and simple import of the words. In fact, this proverb is but a partial expression of the great truth, that this world is arranged on a system of order and justice, which conditions every man's havings or his doings, his receivings or his givings, his success upon his enterprise depends, and it causes society, and even nature, to reflect back on him the tone of his own spirit, whether he be a niggard or whether he be a man of a liberal soul.

On looking at the condition of our farms, and thinking of the objections so often urged, and still oftener felt, against almost every proposition for agricultural improvement, it has occurred to me that we especially need to receive the lesson contained in the proverb to which I have referred, and to become much more deeply impressed with its truth, and the extent of its application. Wheat, and oats, and rye, are not all the farmer has to sow; thought, and labor, and capital are as much germinal and productive principles at his disposal, as the seeds of plants, and it is in his use of these, especially, that he will find the proverb verified, and be compelled to reap as he has sown. That my remarks may be practical and useful, I propose so far as time will permit, to specify cases to which this principle will apply; or in other words, I will endeavor to point out a few opportunities of securing bountiful returns for some additional outlays upon our farms; and first:—

Of Providing Water for Stock.—In many portions of Ohio there is, in dry seasons, a deficiency of water for stock. I think its importance in the animal economy cannot be understood by many of our farmers, or more strenuous efforts would be made by them to secure a supply. Water is needed by animals to supply the waste occasioned from the blood by evaporation, and the various secretions—the stomach needs its aid as a solvent of the substances taken as food, and which, without it, cannot be readily digested; and besides, it enters largely into the composition of all animal bodies, not only of the fluid portions, but also of the solid. Some animals may indeed make out to live with but a scanty supply, but none without it can thrive as they would with an abundance of water to drink. In some localities there are neither durable streams nor copious natural springs; but stock ought not therefore to be permitted to suffer; certainly not, if we can find at the foot of hills, or banks, wet places where by carefully collecting the water by drains, made of stone or draining bricks or tiles, it may be brought to one point, and into a trough, or some other convenient way, be made available. When springs of this kind are to be improved, it is probable that on most farms are streams or temporary water courses, large or small, which, though not durable, may be dammed up to form ponds or reservoirs, in which the water may be kept through the whole summer, fresh enough for stock.

In addition to the advantage of such reservoirs for stock, it may not be amiss to hint that when the places for them are well selected, and the surroundings arranged with some degree of taste, they may be made to add much to the beauty of our farms; and in favored situations, when they can be supplied with good springs, let them be stocked with fish, and thus afford a new source of pleasure or profit.

Of Summer Feed.—During two or three of the hotter months, our cattle and sheep improve but little. This is not so much owing to the discomfort of the heat, as to the fact that the grass stops growing during the hottest and driest weather. If our pastures could be kept as fresh and luxuriant through July and August, as they are through May and June, how much more uniform would be the growth and improvement of our stock.

To secure a continual growth of feed, scarcely anything is needed but a continued supply of moisture to the roots of the grass, and this supply of moisture may be secured by *deeper tillage*. On lands that have been deeply plowed, and especially on those where subsoiling has been practiced, the roots of clover, or grass, will go below the parched surface, and support a continuous growth of herbage in the driest weather, or even in the driest seasons.

Underdraining is also an important adjunct of deep plowing in promoting the growth of summer feed. On tenacious soils, where underdraining is not practiced, the surface is usually thrown up into lands to facilitate the escape of what in some seasons would be a superabundance of water; when this is done, but little moisture penetrates the soil for the summer supply. Were such lands underdrained at the depth of three feet, or more, the surface might be left entirely level, and all the water falling upon it invited to sink into the soil in connection with the various fertilizing agents suspended in it; this would obviate all danger from temporary or even continued droughts; while in wetter seasons the drains would prevent mischief from excess of moisture. And in seasons like the past, *woods pastures* are of great value. If those portions of our farms which are reserved uncleared for the sake of the timber, were underbrushed and fenced, and well seeded with blue grass, which grows finely in such situations, they would, in the driest months, and especially in seasons of excessive drought, afford more than twice the pasture that could be obtained from fields perfectly cleared. A prudent farmer will certainly provide against a "rainy day;" should he not also provide against dry days, which, in this climate, are perhaps more to be feared?

Of Shade and Shelter.—What a *tree hating* spirit possessed the earliest settlers of Northern Ohio, and their immediate descendants. How few fine trees were left, either to beautify the landscape, or for grateful shade. In Southern Ohio, the pastures are usually shaded with groups of forest trees; and who that has seen the satisfaction that cattle and sheep manifest in their shadows, in the scorching days of summer and autumn, can doubt their utility? When the thermometer is up to 90° Fahrenheit, it is as much as fat cattle, or indeed any cattle, can do to keep cool, even when not subjected to the direct rays of a burning sun. If they do keep cool under such circumstances, it is by means of excessive evaporation, and a great waste of moisture from the system, and when subjected to this, they will add but little to their size or weight.

Shelter is as important in winter as shade in the summer. I need not dwell on the liability to sickness and death from exposure to all the vicissitudes and inclemencies of our winter weather. The annual loss sustained from such causes has, I presume, made this matter sufficiently clear; but the increased *consumption of food* consequent on deficient shelter, is possibly not as well understood. Food, as every one knows, is required to furnish the materials for building up the animal frame, and for repairing its continual waste; but in cold weather the larger portion of what is consumed, is appropriated to the production of *animal heat*. The carbon of the food combines with the oxygen taken into the lungs in respiration, and in the union heat is evolved in a manner analogous to that by which heat is obtained from the consumption of fuel in a stove. Whatever the temperature of the atmosphere, the circulating fluids of animals must be kept up to a uniform heat, or death will ensue, and enough of the food consumed will be used for this purpose before any can be appropriated for the purposes of growth or fattening. Build good comfortable shelters for all kinds of stock, in which they can feed and lie warm, and it will soon prove to have been a profitable investment in the saving of food and in the better growth of the animals. N. S. T.

For the New England Farmer.

WITCH GRASS.

Mr. Editor:—It is often the case that we may partially cure an evil, when we cannot wholly eradicate it. A selection in the last week's *Farmer*, on the subject of witch-grass,—a subject well calculated to excite the malevolent feelings of one's nature, who may have much of it to deal with,—has led me to pen a few thoughts on the subject.

I have succeeded pretty well in eradicating it from three different kitchen gardens by breaking up the ground and planting with potatoes, and the next spring, after plowing, by going over the ground with the manure-fork, and throwing out the roots into heaps, and wheeling them into the hog-pen; plant again with corn and potatoes in large hills, and during the first hoeing dig out every root. This, though a slow process, is not so much so as might at first be imagined. By watching every blade of this grass as it springs up during the season, it can be completely subdued, without any further trouble, after the second year. It is of no use to get vexed in the spring of the year, and swear vengeance against it by digging out a pile of roots, and stop there. The worst part of the difficulty is over, but a blade left here and there will, by the next spring, form an extensive supply of roots, for they grow late in the fall and early in the spring.

While surveying a piece of valuable intervale, the last summer, on the farm of Tyler P. Town, Esq., of this town, I was struck with the garden-like aspect of his farm, and was informed by him that he had succeeded completely in eradicating witch-grass from his field, wherever he had tried it, by summer tilling. He took a given piece of land and let it go fallow one year. During the drought of summer he plowed it and harrowed it several times, and in this way exposed the roots to the sun. The expense, he informed me, was about ten dollars an acre, which was cheap for land worth in the market one hundred dollars an acre. By repeated plowings, the land becomes completely dry during summer, when not covered with vegetation, and witch-grass roots *will* die when deprived of moisture, as well as other roots.

I remember, when a boy, that my father, whom I honor as having been a skillful farmer, was in the habit of sowing his fields, which were of a sandy soil and subject to witch-grass, with winter rye, and turning them out to a sheep pasture, and taking up another portion of pasture into his field. In a few years the witch-grass was completely eradicated, except around the stumps and fences. I believe that witch-grass rarely ever spreads by the road-side, even where it abounds in the adjacent fields. When witch-grass is troublesome around fruit trees, I have found spent tar not only a good mulching, but also a check to the roots of this grass.

I have no theories or suggestions to make on this subject. What I have written are plain matters of fact: and if they offer suggestions to others by which they may at least partially rid themselves of a weed ten times more troublesome than thistles, I shall be gratified.

N. T. True.

Bethel, Me., Dec. 9, 1854.

Remarks.—We hope to hear often from Mr. True.

Rockingham Fair.—The annual meeting of this society was held in Exeter, N. H., on Wednesday, Nov. 15, and the following persons were chosen officers for the ensuing year, viz:

President.

Henry F. French, *Exeter.*

Vice Presidents.

James Pickering, *Newington,*
Jacob B. Brown, *Hampton Falls,*
Moses Eaton, *So. Hampton,*
David Currier, *Derry.*

Trustees.

Winthrop H. Dudley, *Brentwood,*
Silas F. Learnard, *Chester,*
Nehemiah P. Cram, *Hampton Falls,*
James H. Diman, *Stratham,*
Zebulon Sanborn, *Epping.*

Secretary.

Wm. P. Moulton, *Exeter.*

Deadening Timber.—When the bark slips freely in June, July or August, it is the best time to girdle trees. Cut the small growth three feet above the ground; the roots do not sprout, and the stumps are more easily removed.

Importance of Draining.—By a recent decree of the French government, 100,000 francs, about $20,000, are devoted to encourage the manufacture of draining tiles for agricultural purposes in the provinces.

WINTER CARE OF CATTLE.

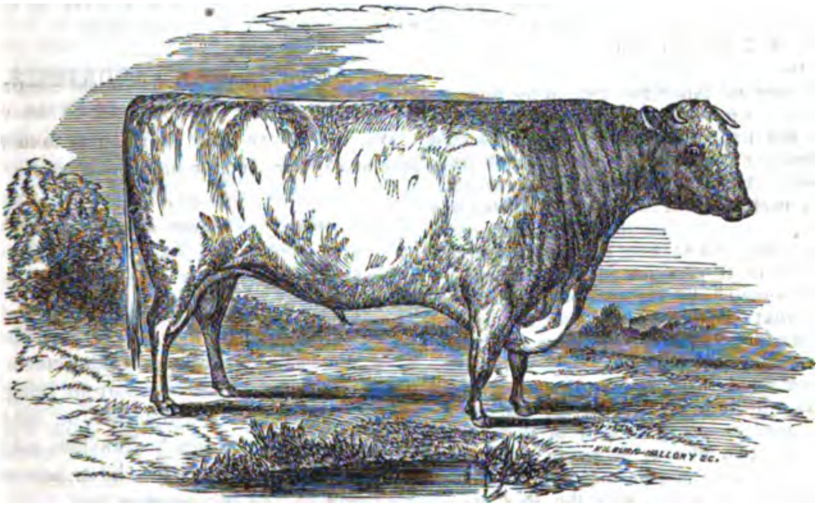
The good farmer should feel, that the comfort of the stock he owns is dependent in a great measure upon him. Especially is this the case in the winter. At this season, they require constant attention in feeding, watering, carding, &c. They should be fed at proper and stated times, and as nearly as may be, have an equal allowance at each meal. By this regular feeding, they will thrive much better, even on a smaller amount, than if fed at irregular times, and with varying quantities of food. They want, also, a variety in regard to food. A few roots are very useful to them daily. Corn fodder, if fed to them once or twice a day, will generally be eaten up clean, whereas, if they are fed on it constantly, much of it will be refused and wasted. They should not be put on the poorest hay first. This should be reserved, and fed to them occasionally, in the coldest weather, when it will be eaten up clean.

They should have an abundant and convenient supply of water. In this our farmers fail to supply the wants of their stock more than in feeding. Many depend for water upon a brook or spring, at some distance from the barn. In cold and stormy weather the cattle, especially the weaker and younger portion, are driven back, and not allowed to drink until their thirst becomes excessive, and then at the peril of being hooked and injured by the others.

Water, either by a well in the yard, or in some other way, should be supplied to the cattle in sufficient quantities, so that they can all drink as much as they choose. If the water is brought into the yard, the trough from which they drink should not be placed under a shed, or in a sunny part of the yard; if it is, the cattle after quenching their thirst, will stand around it and prevent the others from coming up.

We think well of the plan of keeping the cattle in the barn through the day, except when they are let out to drink; especially, if the barn is tight and warm, as all our barns in this cold country should be. They may be kept in as good condition on a less amount of food in this way, than if turned out in the cold bleak winds and storms; and much more manure will be saved to the farmer, by this course, particularly if there is a good cellar under the barn, and the owner has provided it with a good thick bed of peat, or some other absorbent to hold the liquid manure.

Above all things, it is poor economy for the farmer to allow his cattle to go roaming round through the pastures and by-ways, through the bushes and woods in the winter, browsing. They should be kept constantly in the yard, if not in the barn, for by this course alone will he save his manure, and if this is not saved, his next year's crops will at maturing show him his negligence and improvidence.—*Granite Farmer.*



IMPROVED SHORT HORN BULL.

We are mainly indebted to the Rev. HENRY BERRY, for just descriptions of this noble breed of cattle. In some localities they are great favorites, and prove good milkers and workers. The colors of the improved short horns are red and white, or a mixture of both; "no *pure improved short horns,*" says Mr. YOUATT, "are found of any other color but those above named." Mr. JAMES DICKSON, another competent judge, says, "in its *points,* for quantity and well laid on beef, the short-horned ox is quite full in every valuable part; such as along the back, including the fore ribs, the sirloin and rump, in the runners, flanks, buttocks, and twist, and in the neck and brisket, as inferior parts." Mr. Dickson also speaks of their "exquisitely symmetrical form of body," as going to "form a harmony which has never been surpassed, in beauty and sweetness, by any other species of the domestic ox."

Mr. CULLEY, another writer, states that "the short-horned cows give a greater quantity of milk than any other cattle; a cow usually yielded 24 quarts of milk per day."

A SPLENDID BARN.

Few farmers can afford to erect a building equal to the one they plan, and still fewer build one like that described below. Still we publish a description of it, because he who cannot obtain all its advantages, may secure a part. Perhaps some of them can be provided for in those already occupied. We ask special attention to the manner of seeding. The description was given as appears below, by a correspondent of the *Rural New-Yorker*.

The barn belongs to David Leavitt, Esq., a merchant prince of New York city, who has a farm in Great Barrington, Mass., pleasantly located upon the Housatonic.

It is 200 feet in length, with a centre wing on the east side, three stories high, with an arched roof covered with tin, and a cupola on the centre, and erected at an expense of nearly $20,000. It is based in a ravine which it spans, thus affording an easy entrance into the third story. Through this ravine runs a durable stream, with which is formed a beautiful reservoir of water directly above the barn, that operates upon a wheel twenty feet in diameter, thus forming an excellent motive power that is used for a great variety of purposes, such as sawing wood and lumber, threshing, cleaning, and elevating the grain, cutting straw and stalks, unloading hay, depositing it in any desired loft, churning, grinding, &c.

The first story is used as a manure vault; the third for grain, hay, and apartments for domestics. The arrangement for feeding the cattle is most ingenious and convenient, the following description of which I give in the language of Mr. Wilkinson:—

"All the manual labor required in feeding the cattle is to run a car which contains 25 bushels of feed before the line of cattle, and shovel the food into the feeding boxes, which are of cast iron, quadrant shaped, of about 100 bushels' capacity, and one to each stall. The boxes are placed one on each side of a partition, that divides two stalls, and are each attached at the right angle corner of the box to the front partition stud by hinges, so that the boxes may be swung around into the feeding hall, in front of the cattle, and over the feeding car, that the seed which spills in filling the boxes, may fall into the car instead of on the floor. After the boxes are filled, they are turned with a slight touch before the cattle again. In the centre, between the next or adjoining pair of stalls, is an erect cylinder, two feet in diameter at the top, which projects equally into each stall, and extends from about a horizontal line with the tops of the feed boxes (on the opposite side of the stalls,) to the upper surface of the hay-loft directly over the cattle, that it may be filled from the floor. There is a circular aperture, six inches in diameter, in each side of the hay tubes, at a convenient height from the floor, so that two animals may eat from the same tube at the same time. Under the tube is a drawer into which all the loose hay seed falls through its latticed bottom, which drawer when full is emptied, and when a large quantity of seed accumulates it is cleaned for use or market. The seed obtained is of a superior quality, and the quantity ordinarily saved by this arrangement, will pay for all the manual labor required about the building throughout the year.

Across the front of the stalls there is also an extraordinary box manger, directly under which, and running the whole length of the stable, is a trough of water, with suitable openings in the bottom of the manger, through which cattle may be watered by removing the iron slides, and which is done by the means of a lever opening the line of slides at once.

The very great economy and convenience of this arrangement are obvious at a glance, and may be taken as a specimen of the perfection exhibited throughout. Under one of the drive-ways into the third story, is an arched room, well ventilated, and lighted with a glass front, which is used as a milk-room, and has a great many conveniences connected with it for diminishing the labor of taking care of the dairy, which can all be performed without the least exposure to the weather, within the compass of a few feet. The herd is fed with hay, cut feed and steamed roots, that are reduced to a pulp by the revolution of a cylinder in which the roots are placed after steaming, with four cannon balls of two pounds each, and I believe during the summer season the boiling system is to be practiced in part. The building is well lighted and ventilated, so that no diseases are generated by confinement or impure air and deleterious gases, an important feature that is too often overlooked.

On the side of the barn facing the Housatonic, which is but a few hundred feet distant, are projections of cut stone, so arranged as to convert the water which falls over them into a sheet of foam, from which it justly derives its name of "Cascade Barn."—*Plow and Anvil.*

AGRICULTURAL ADDRESSES.

MR. FAY'S ADDRESS IN ESSEX.

We had the pleasure of listening to this plain, practical and instructive production, at Lawrence, at the last Exhibition in Essex county; and now we give several extracts that the reader may judge for himself. Mr. FAY indulges in no flights of oratory or fancy, but pursues the even tenor of his way with a good sound common sense, and on topics of utility. He has not set up images of straw to display his skill in knocking them down; nor is there any strained effort to bring in the observations he made when abroad, on subjects of no use at home; nor does he run into sublimated refinements of science—but tells us how common labor may be done in a common way.

If more of our learned men would imitate his example, and tell us what they know and no more, we should be much better instructed. But we are keeping the reader too long from the extracts we wish to present.

FARM WORK IS DRUDGERY, UNLESS THE MIND IS IN IT.

Our farms have ceased to be a favorite scene of labor to our young men, because the work to be performed is mere drudgery, without pleasure or excitement to the mind, but full of weariness to the body. If, however, you will bring to the farm the steam engine or horse power, and the various implements they put in motion, our children will gladly remain upon the homesteads they now desert for the factory, the machine-shop and the railroad. He who delves and digs the earth from morning until night, has little time and less inclination for thought—he becomes a mere toil-worn machine at last; but if he is connected with an implement the working of which he is to guide and direct, his position is completely changed; he is then a master over a slave, a truly soulless slave, that labors without sweat to do his bidding.

MASSACHUSETTS A LAND OF SMALL FARMERS.

Massachusetts is a land of small farmers, and we must therefore resort to the principle of association, so well known and practiced upon for various other purposes, to accomplish what is beyond our individual means. We must combine together in the purchase of expensive agricultural implements, and arrange for their use in a way to secure perfect fairness and equality. This is only one of the many ways by which the cost of them may be very much reduced. If sufficient encouragement were given, persons could be found in every community to work them on their own accounts, going from farm to farm as a regular business, profitable to all parties. This is practiced to a very considerable extent among the small farmers in England.

THE TURNIP CROP.

To grow turnips, the land must be well plowed, highly manured and kept free from weeds. It was a crop, which in a proper rotation, prepared the land in the best manner for those which follow it; more than this, it would do well on his light loams, although perhaps better adapted for a heavier soil. Its yield was large and bulky, and to dispose of it to the best advantage, it ought to be fed off the farm to the cattle during the winter; to do this, he would be forced to increase his stock, and in this way he would augment his barn-yard manure, which in its turn would add to the fertility of his soil. He would have better cattle, better and more pigs, and if he kept a few sheep, as every farmer should do, his lambs would come earlier to market, and would be in good condition and command high prices, instead of being sold for their pelts.

This recommendation to grow turnips must not exclude, nor was it intended to do so, the cultivation of other roots. Beets and carrots for some lands, are more profitable than turnips, besides being better food for milch cows. Every farmer can soon learn by experience which root thrives best on his land, and having learned this, he will be blind to his own interest if he does not cultivate it.

A leading English agriculturalist has said, I believe with perfect truth, that the failure of the turnip crop in that country would be a heavier blow to its prosperity, than the failure of the Bank of England. It is owing principally to the liberal use of the turnip, that English cattle and sheep have reached their present high state of perfection, making the land support four times the number that could be maintained under the old system of hay and pasture feeding. If we should adopt their practice in this respect, there is no reason why we should go abroad to purchase at enormous prices, animals which in all essential qualities are no better, if as good as our native stock.

GOV. WASHBURN'S ADDRESS AT WORCESTER.

Through the attention of the Secretary, WILLIAM S. LINCOLN, Esq., we have before us the *Transactions of the Worcester County Society* for the last year. Like its predecessors, it contains many valuable papers. The Address by Governor WASHBURN is written in a clear, comprehensive and terse style. He does not attempt to teach the farmer what are the best breeds of stock, how deep and when they must plow, or how he shall drain and reclaim his lands. He takes a view of the subject more consistent with his own habits of thought, study and occupation, and presents some of the means whereby the farmer may elevate his profession and raise himself to his true level. And while he is very happy in the particular current or turn of his theme, there is an equal felicity in the language he uses.

We know that farmers, while they criticise themselves with unmerciful severity, are exceedingly sensitive to the criticisms of others, especially of lawyers; but in this Address the sentiments uttered are so pertinent and just, and the words so gentle and truthful, that we believe no laboring brother can take exception to them. Perhaps the best commentary, after all, that we can make, is to say that we shall copy liberally from its pages, and begin with the following now.

THE FARMER HAS COMFORT AND INDEPENDENCE, BUT DOES NOT TRULY ESTIMATE THEM.

Sure I am, that no portion of God's heritage can offer more signal marks of comfort and independence than those we witness everywhere among the farmers of Worcester County. And yet I shall venture to affirm that no class do more injustice to their true condition, in the estimation in which they regard it, than do the farmers of Massachusetts.

To hear their remarks, to watch their movements, and trace the course they are inclined to adopt in relation to the education and training of their children for the business of life, one would be led to suppose that Agriculture had few claims upon the respect of those who pursue it. And while I do not believe that such is, in fact, the true sentiment of the masses, there is enough of discontent prevalent among the farmers of New England to justify, if it does not demand, a brief discussion of the true position of Agriculture, as a profession, here. If it is not so, why do we see so many young men crowding into other employments and so few settling down contented on their paternal acres? Why are farms in the country in so little demand, even at prices scarcely higher than they bore twenty years ago, although speculators are coining gold out of town and city lots in our new cities and villages that are springing up throughout New England?

Our professions on the other hand are overrunning, till lawyers and doctors starve amidst plenty, and ministers go hungry while they are breaking the bread of Life to rich churches and congregations. And if we find a young man who has self-respect enough to rely upon his own powers, and is willing to earn an independence by his own labor, he grows restive as he looks upon a farmer's life here, and quits his old homestead almost without a sigh, to seek a new home in the rich prairies of the West.

If men would regard the pursuit of agriculture in Massachusetts as its true relations deserve, they would find little occasion for the indulgence of those notions. One great difficulty in the way of a farmer's appreciating as he ought the advantages of his own condition, compared with that of his fellow citizens around him, is the isolated manner in which he passes much of his time within the sphere of his own farm and neighborhood. He is too apt to forget how important is that fraternity to which he belongs, in all the elements of power and influence.

ILL-JUDGED COMPARISONS.

The amount invested and held by the farmers of Massachusetts in lands, stock and farming tools, as stated in the census returns of 1850, exceeds a hundred and twenty-two millions of dollars, and in numbers they greatly exceed either the mechanics, manufacturers, or professional men in the Commonwealth. They forget this when they indulge in comparisons with the seemingly more favored portions of the community, and as life is with them one of economy and toil, they are too ready to grow discontented, when if they would but pause and examine for themselves, they would bless the Providence that had given them such a home and such means of earning and enjoying an independence with it. No circumstance is so fraught with the elements of discontent as this habit of making ill-judged comparisons of one's condition with that of others. We start with assuming that whoever is superior in wealth, or enjoying a larger share of popular favor or personal ease, must be the happier man, and looking only at the outside of things, we allow our eyes to be dazzled by the false coloring which life often wears, even in its best estate.

THERE'S MUCH IN LIFE, AFTER ALL.

There 's much in this life, after all,
  That's pleasant, if people would take it;
On some of us trouble must fall,
  But sure am I most of us make it.
Let us look for the ups and the downs,
  And try to take things as we find them;
And if we are met by the frowns,
  Believe that a smile is behind them.

What have we, we did not receive?
  Is the world not sufficiently roomy?
Then, why should we wish to believe
  We were sent into life to be gloomy?
We may meet with some rubs in our day,
  But do n't let us tremble for fear of them;
Rather hope they will not come in our way,
  And do all we can to keep clear of them.

There are regions of quicksands and rocks,
  And it's difficult, too, to steer around them;
A good plumb line might save us some knocks,
  But it's no easy matter to sound them,
For our needle may point the wrong way,
  And our chart do no more than mislead us,
Till we find that "each dog has his day,"
  And a friend's all alive to succeed us.

But there's much in this life, after all,
  That's pleasant, if people would take it;
Though on some of us trouble must fall,
  Full sure I am most of us make it.
Let us look for the ups and the downs,
  And try to take things as we find them;
And if we are met by the frowns,
  Believe that a smile is behind them.

EXTRACTS AND REPLIES.

A GOOD COW.

MR. EDITOR:—I have the care of a cow that has been farrow for three years, and has averaged during that time, five quarts of milk a day; her milk is of excellent quality, and makes sufficient butter for a family of six, besides supplying what milk they wish to use. She is of common breed, and does not have very high feeding. I ask if, in your judgment, she is not more than an ordinary cow? J. P.

Fitzwilliam, Nov., 1854.

REMARKS.—Certainly, she is an *extra*-ordinary cow. If she is farrow, we suppose she has given milk through the entire year, which at five quarts per day would be 1,825 quarts a year. Allowing 10 qts. for a pound of butter, it would give 182 pounds per year; but we think the milk of such a cow would yield a pound of butter in something less than ten quarts. Eight quarts to the pound would give 227 1-4 pounds.

BEST FOOD FOR MILCH COWS—PLASTER.

MR. EDITOR:—I have been a constant reader of the *Farmer* for years, and I wish now to make some inquiries through its columns. I make milk for the Worcester market. I wish to inquire what is the best and cheapest feed for cows that give milk, and what will make the most milk for the same money, and also how to feed them? (*a.*)

Is it beneficial to sow plaster at this season of the year on winter rye and on pastures? (*b.*)

Worcester, Nov. 6, 1854. WORCESTER.

REMARKS:—(*a.*) The questions under this head can only be answered in a general way without long and exact experiments. The "best and cheapest" food for milch cows which we have ever found, was good corn fodder, clover and herd's-grass hay, and half a bushel, or three pecks of roots,—say, beets, parsnips, carrots, flat turnips and ruta bagas,—per day, for each cow, fed to them in the morning soon after they were milked. Under this treatment this gave more milk than under any other, and we found it the cheapest. Good corn fodder will produce milk abundantly.

(*b.*) The autumn is a good time to sow plaster.

☞ The substance of the article on the State Pauper Establishment at Tewksbury, has already, appeared in the columns of the *Farmer*. We thank the writer, "H. F.," for his attention and hope to hear from him on other subjects.

BREAKING-UP-PLOW—STRAW-CUTTER—CULTIVATOR—HORSE-PLOW—SPRING WHEAT—PEAT ASHES.

MR. EDITOR:—I wish to inquire through your columns, which, in your opinion, is the best plow for breaking up grass land? (*a.*)

What is the best straw and corn-stalk cutter? (*b.*)

Which of the two does the work most thoroughly, the cultivator or the horse-plow, and the price of each? (*c.*)

Which is the best kind of spring wheat, and how much seed will it take for an acre? (*d.*)

Are peat ashes good as a fertilizer? (*e.*)

YOUNG FARMER.

REMARKS:—(*a.*) There is, probably, no better plow for breaking up grass land than the No. 33, Double Eagle plow, where two or three catttle are to be used. For four cattle take No. 35 1-2 of the same construction.

(*b.*) We have tried several kinds, but find nothing equal to *Gale's Patent Eagle straw and corn-stalk cutter*. It works rapidly with a single knife, and is exceedingly simple in its construction.

(*c.*) On ground mostly free from roots and stones a good steel-tooth cultivator is better than a horse-plow; but on rough, stony lands, the plow would be best.

(*d.*) The best seed wheat we get comes from Canada. A kind called the "Scotch Fife," is considered the finest *spring* wheat. On ordinary soils *six pecks* are required, but on very rich land *five pecks* will be sufficient.

GAS LIME.

If "T. H.," from New London, who in the Dec. No. inquires about gas lime, will look at the Oct. No. of the *N. E. Farmer* for 1853, page 455, he will find an analysis of gas lime. T. O. J.

FOOD FOR MILCH COWS.

MR. EDITOR:—I recommend to your correspondent "Worcester," if he wants to raise milk for market at the least possible cost, to feed half a bushel of turnips, boiled with four or five quarts of shorts, once every day to each cow. This, I think, is the cheapest food for milch cows. Will "Worcester" please give the result, if he trys it?

Dec., 1854. Yours, HUNTER.

MR. EDITOR:—What breed of cows do you consider the best for quantity and quality of milk and butter—viz.: for one family where one *good* cow *well* kept will furnish milk sufficient for all purposes?

This is the query. Are not *some* of our *natives*, as good milkers as *some* of the *foreign* blood,—Devons, Ayrshires, &c. &c.?

We go in for *native born*, so far as our experience goes, but we do want the "good article," anyhow. H. C. PARKER.

Manchester, N. H., 1854.

REMARKS:—A good Jersey cow would probably be the best where the milk is required only for family use—say milk for bread-making, for the table, with cream for the pitcher and for an occasional churning. But Jerseys are at present high and scarce, and some other breed may be found which will answer the purpose. Select a native cow four years old, with small limbs, a neck somewhat slender, lean head, small nose and tail, with a well-developed bag, reaching considerably forward and with good sized teats. A middling-sized animal with a bright, lively countenance, but at the same time gentle. Feed her upon upland hay where a ton or a ton and a half to the acre is cut, and give her the slops of the family mixed with a quart of sweet shorts twice a day; and she will probably yield you an average of four quarts of milk a day. When she is six years old, if kept in the manner described, she may yield you an average of six quarts a day for four years. She ought not to go dry more than three or four weeks.

For the New England Farmer.

PRODUCTS OF A SINGLE ACRE.

I am a subscriber to the *Farmer*, and am pleased with it, both as an agricultural and family paper. I see in its columns a tone of freedom, which I like, and a hatred of oppression, which every lover of liberty must admire.

I give you below a statement of the products from one acre of ground, for the last three years, which I think is not bad. The first year I plowed in the grass, and put about forty loads of manure on the sod, harrowed and planted to corn, hoed three times, and got fifty bushels. The second year planted to potatoes, and had 315 bushels. The third year sowed to wheat, put on eight bushels of ashes and 200 pounds of plaster, and had twenty bushels. I also send you a sample of gold, which I dug on the bank of a brook, which runs through a farm that my father sold this fall to a Californian. There has been somewhere from fifty to a hundred dollars' worth taken out this fall, by different persons digging for the fun of it. It remains to be seen whether it will pay to work it or not.

Yours, &c., B. G. RUSSELL.

Stowe, Vt., 1854.

REMARKS.—Your experiment shows what the soil will do if it has a fair chance. There is no doubt on our mind that farming is just as profitable as a business *ought to be*, when it is properly conducted. The gold came safely. Potatoes are wanted more, and we hope your people will give the potato crop the preference.

A GOOD MOVE.—On the 5th inst., Mr. Wentworth, of Ill., offered the following resolution in the House of Representatives:—

Resolved, That the Committee on Agriculture inquire into the expediency of establishing a National Agricultural School, upon the same principle with the National Naval and Military Schools, to have one scholar educated at the public expense, from each congressional district, and to be established in connection with the Smithsonian Institution, so as the better to carry out the object of its founder.

Very good, so far, and we are greatly obliged to Mr. Wentworth; but will the resolution be passed, and if it is, will the committee on agriculture press the matter on the attention of Congress? Judging from the past we fear not. But remember, farmers, there's a "good time coming," when your voices will be heard at Washington as well at the several State capitals. Aside from its warlike tendency, we consider the Military Academy at West Point the best educational institution in the United States. An Agricultural Academy, conducted with the same energy and thoroughness, would be of incalculable advantage to our country.—*Country Gentleman.*

HINTS ON THE BREEDING OF FOWLS.

If not already done, now is the time to look over your lots of fowls, and carefully select out the hens and roosters designed to be kept for breeding next year. The fecundity of hens affords the breeder great facilities for improving the breed, but how seldom does he take advantage of them. To make decided improvement in a breed of horses, cattle, or sheep, requires more time than most go-ahead Americans—who are ever ready to pull up stakes, and sell out for a "consideration"—are willing to bestow. In fact, the bare idea of spending half a life-time in perfecting a breed of animals, would be enough to frighten them from the undertaking. Hence we shall probably continue to import the pure breeds of cattle originated by more plodding nations. But with fowls, the length of time required need not deter any one from attempting to improve the breed. By careful and judicious selection, any farmer — or, we would rather say, any farmer's son — may, in two or three years, add a hundred per cent. to the good qualities, and correct most of the deficiencies, of his present breed of fowls — unless, indeed, they are already much better bred than the ordinary fowls found in farmers' yards in most parts of the country.

In this country, and even still more so in Great Britain, fowls have been looked upon as beneath the serious consideration of the farmer. But this is far from being the case. There is no other item on a farm that foots up more net profit than a good breed of properly kept fowls. This is a fact gradually taking possession of the public mind, (thanks to the agricultural press and — though we do not fraternize with them — the chicken speculators,) and we shall ere long witness a decided improvement in the common fowl of the country. For, without taking into consideration the improvement caused by the introduction of Asiatic and other foreign breeds, the stimulus of high prices and good profits has directed the attention of farmers to their common breeds, and it cannot be doubted that if they once take hold of the matter in earnest, great beneficial results must speedily follow, and that without the introduction of any foreign blood.

Now is the time to take this matter in hand.—Select out hens under four years of age, having reference, particularly, to a healthly and vigorous constitution, large, well-formed bodies, and rather small legs and feet, bright eyes and pendent combs. Early maturity and good laying qualities must not be forgotten. The form is a good indication of the former, and also, to a certain extent, of the latter. If early maturity, beauty of form and refinement are carried too far, the tendency to lay eggs is supposed to be diminished. If a hen is known to be of an uneasy disposition, or a poor layer, on no account keep her.

Having selected what hens you intend to keep for breeders, it will be advisable to sell off all the others now, so that the remainder may be better fed during the winter. It is vain to expect a abundance of eggs next spring if the hens are starved during winter. A few hens fed will always prove more profitable than a large number half-starved during a few months of the year, even though they may have a superabundance of food at other times. See, too, that the hen-house is warm and *dry*. Hens, like sheep, can stand anything better than water. Let the hen-house be thoroughly cleaned out now and regularly supplied, during winter, with clean, dry straw.

If you design to change one or more of your roosters, now is the time to do it. They will thus have abundant time to get acquainted with their partners before spring. In selecting a rooster, we should not look so much to beauty of outline, as to a vigorous and valiant demeanor, strong, muscular thighs, full breast, and plump, heavy body, having more muscle than fat. Color is a mere matter of fancy. White fowls are supposed by some to be delicate; but this has not proved so in our experience, though it is probable, as a general thing, that colored fowls are the hardiest. White or bluish legged fowls are the favorites with some, from the whiteness and apparent delicacy of the meat; but it is admitted that the yellow legged are the richest and most highly flavored.

If a little flesh meat can be cheaply obtained during winter, the fowls will be all the better for it. It is a tolerably good substitute for the worms and insects they obtain in warmer latitudes. Be very careful, however, not to give them any salt meat, as it always proves injurious, and sometimes fatal. There can be no doubt that salt is not required by fowls in larger quantity than that obtained as a constituent of their ordinary food. They must have access to fresh water, and if they cannot find enough food from the scatterings of the barn-yard, must be fed as the judgment of the farmer dictates.

For the New England Farmer.

PRUNING APPLE TREES.

REPORTED TO THE CONCORD FARMERS' CLUB BY
BY WILLIAM D. BROWN.

MR. PRESIDENT:—The subject assigned to me for a short essay was *Pruning*. I shall speak only of apple trees.

The apple tree grows with a superabundance of limbs, that provision may be made against casualties, and an opportunity afforded for the cultivator to train according to his particular taste, or the necessities of the locality.

A young tree in the nursery requires but little pruning, if any, for the first two years. The side limbs contribute to the growth of the stock, which naturally grows with a regular taper from the ground up. When the low limbs of a young tree are early removed, and the sap driven into the top, the tree will not sustain an upright position. The top increases faster than the trunk, which soon becomes too weak to support it. A tree that has been trimmed at the right time, requires no staking when transplanted. When a tree is trimmed in the nursery, it is hardly possible to shape the head and leave on only such limbs as will be required when it arrives at the bearing state. The head should be *worked up* gradually, a few lower limbs each year being cut away.

Cultivators generally agree that the lowest limbs at the trunk of the tree should be out of the way of teams passing under it. It will be found a great convenience in plowing to have the tree trained with one straight upright stem. Those side branches are of the right kind that join the trunk nearly at a right angle. They can never break, even if bent to the ground at their extremities. It will be found that there will form about the junction a hard knot which never gives way.

A tree properly shaped when young will seldom require the removal of large limbs. If this is ever necessary it is well to check the sap for one or two summers by partly girdling the branches you wish to remove. This may be done without the slightest danger or inconvenience during the growing season, and in the Autumn, when the limbs are cut away, the wounds will keep dry and soon become perfectly hard. If they are of considerable size, it is well to cover the exposed part with a little paint.

In my own practice, I have found great success in partly girdling limbs which I wished to check and subsequently remove. I have found the practice interesting in one particular; the limbs girdled are sure to bear before the others. The descending sap is checked and forms fruit spurs. Scions set in thrifty stocks generally require no pruning the first year. The second year, where two have been set and both lived, one should invariably be removed. If the limb is large and thrifty, great care is necessary to save the remaining scion from a too great rush of sap. This may be done by leaving on the limb sufficient branches of the original stock, which should be gradually removed. I may remark here that too many scions are usually grafted into a tree. A few in a few years will afford enough top. Trees usually bear apples on the outside, in the sunshine. A thick top is always barren.

TIME OF PRUNING.

If you trim when the tree is not in leaf, when the sap starts it will ooze from the wound, and discolor and kill the bark. The part exposed will rot, and soon decay will extend through the entire heart. If the tree is small, it is often ruined; if it is a large tree, it is very seriously damaged. It is better to prune in Autumn or while the tree is in full leaf. In June the wound will immediately begin to heal. In September it will remain dry and sound.

TOOLS FOR PRUNING.

These should be sharp. For small trees excellent knives are made, which every owner of a tree should use. For removing limbs of a considerable size I use a mallet and a light hand chisel. The chisel cuts smoother than a saw, and quicker.

FROST AS A MANURE.

We know of no treatment so directly beneficial, for almost every class of soils as that of throwing up land in narrow ridges, in the fall or early winter. There are few soils, worth cultivating at all, that do not contain more or less materials which can be made available to plants by the combined action of air and frost.

Take two plots of heavy soil, side by side, and let one lie unmoved till spring, while the other is *deeply* plowed in autumn, and the result will be very visible in the spring crop. But the manner of plowing is important. To secure the greatest advantage, a single furrow should be thrown up, and another back-furrow directly upon it, so as to produce a high ridge, and another ridge is to be made in the same manner with a deep dead-furrow between the two. The process is to be continued thus through the whole field, so that when finished it will present a surface of high ridges and deep dead furrows, succeeding each other, about once in two or two and a half feet. If prepared in this way, the frost will penetrate far downward, loosening and disintegrating the soil below the furrows, while the ridges will crumble down, as they will not hold water, the air will circulate freely through them, decomposing the mineral portions, and conveying in ammonia and other gases. This operation will be equal to ten or more loads of good manure upon clay or compact soils.

In the spring it will only be necessary to run a plow once or twice through the centre of each ridge, and then level the whole down with a heavy harrow.

Another advantage in this process, is that when land is thus prepared, it dries out and warms several days earlier in the spring. Again there are some soils that are exhausted upon the surface, but which contains poisonous substances in the subsoil. If this subsoil is thrown up in contact with the air and frost during winter, these poisonous compounds (usually proto-sulphate of iron or manganese) will be destroyed, or changed to a harmless form, during the winter.

The above practice is especially to be recommended in the garden. One of the most successful cultivators of an acre of ground in our acquaintance, digs it up in the fall to the depth of three or four feet, making deep trenches and high ridges, so that the whole acre appears to be covered with high winrows of hay placed closely together.

We strongly urge every farmer who has not tried this method, to lay out their plans now for experiment in this way, or on a larger or smaller scale, during the present season.—*American Agriculturist.*

CONCORD FARMERS' CLUB.

The Annual meeting of the *Concord Farmers' Club* took place on the evening of the 9th inst. The persons elected were,

E. W. Bull, *President.*
Wm. D. Brown, *Vice President.*
Minot Pratt, *Secretary.*
John Raynolds, *Treasurer.*

Standing Committees were then elected and Reports ordered on the following subjects:—manures; hoed crops; root crops; grain crops; grass crops; live stock; farm buildings and farms; farming tools; reclaiming waste lands; garden fruits; ornamental gardening; fruit and ornamental trees; draining; feeding stock; pruning, and a special committee on the value and effects of guano as a fertilizer.

TIMBER.

How full of graceful sentiment is the following extract from Vaughan's Poems, published in 1640:

Sure thou didst flourish once, and many Springs,
  Many bright mornings, much dew, many showers
Pass'd o'er thy head; many light hearts and wings,
  That now are dead, lodged in thy living towers:

And still a new succession sings, and flies—
  Fresh groves grow up, and their green branches shoot
Towards the old and still-enduring skies,
  While the low violet thriveth at their root.

☞ Often breakihg up a surface keeps a soil in health—for when it lies in a hard bound state enriching showers run off, and the salubrious air cannot enter.

For the New England Farmer.

MACHINE FOR PEELING WILLOW.

MR. BROWN:—Those of your numerous readers who are engaged, or contemplate engaging in the cultivation of the *basket willow*, will be pleased to learn that there is a machine for peeling the willow. Mr. GEORGE F. COLBY, of Jamesville, Vt., the inventor, has had a machine made by which its merits have been fully tested; and all who have witnessed its operation, agree that it does the work to perfection and with the greatest facility, and believe it to be one of the greatest labor saving machines of the age. This, I believe, is the first machine ever invented for the purpose, either in this or the old country, and must add vastly to the cultivation of the article in this country. Mr. C., who has been successfully engaged in the cultivation of the willow for several years, estimates the cost of peeling, in the ordinary way, at from $80 to $120 per acre, or at $40 per ton, while he claims that his machine, which requires but one horse power, with two men, will do the same work within at least from two to three days, at the rate of one ton per day. Mr. C. has taken measures to secure a patent.

Bolton, Vt., Dec., 1854. J. R. JEWELL.

THE CONNECTICUT VALLEY FARMER.—Prof. J. A. Nash, of Amherst, has become the editor and Proprietor of this paper, and we find its columns filled with the well written and valuable facts so familiar to the mind of the writer. The *Valley Farmer*, under the care of Prof. Nash, will be the medium of such intelligence as most of us need in the operations of the farm. We wish it abundant success.

POSTAGE.—Gentlemen writing the Agricultural Editor on their own affairs, and requiring a reply, will be kind enough to enclose a stamp for the return letter.

PRETTY FINE CABBAGE.—W. C. Hoff, Esq., has sent us from his fine gardens, at the Mission Dolores, a very compact and finely grown Cabbage, of the Flat Dutch variety, weighing 32 1-2 lbs. If any of our cultivators can beat this, we should like they would bring along their specimens. —*California Farmer.*

FEED LIBERALLY.—It is generally acknowledged that cattle of any kind, when well fed and looked after, repay much more fully the judicious outlay incurred for their maintenance, than ill kept animals repay the niggardly expenditure incurred in keeping them alive. Profit is derived only from the excess above that which is absolutely necessary; the quanity of nourishment which just keeps an animal alive, is to a certain extent lost. This we say is generally acknowledged, but we are sorry to say, not so generally practiced upon.—*Rural New Yorker.*

GENEROUS PRICE FOR FRUIT.—Two splendid Oregon Pippins, weighing 2 1-2 and 2 1-4 lbs., and one splendid Pear, weighing 1 3-4 lbs., were sold by Mr. Weaver, at No. 1 Washington Street, at $10 each.—*California Farmer.*

WINTERING CABBAGE PLANTS.—Any method simple and inexpensive, for preserving of autumn sown cabbage plants through the winter, is a valuable consideration. We know of none better adopted for the great bulk of people, than the following, practiced to a considerable extent by market gardeners, and in dry, sandy or upland soil, with good success.

THE ARGAN TREE.

The following letter, descriptive of the Argan tree, by the British Acting Vice Consul at Mogadore, will be read with interest. The tree is valuable in dry countries as furnishing what is there much wanted, a supply of food for cattle in seasons of drought.

The Argan tree grows more or less throughout the States of Western Barbary, but principally in the province of Haha, and south of this town.

The soil on which it is found is light, sandy, and very stony. It is usually found upon the hills, which are barren of all else, and where irrigation is impossible.

I should imagine, from the appearance of some of the trees, that they are from one to two hundred years old; and a remarkably large one in this neighborhood, I should say, is at least three hundred. This tree measures round the trunk twenty-six feet; at the height of three feet it branches off, (one of them measures eleven feet near the trunk;) these branches rest upon the ground about fifteen feet from the trunk, and again ascend. The highest branch of this tree is not more than sixteen to eighteen feet: the outer branches extend to a circumference of 220 feet. This is the largest I am aware of.

The system of propagation in this vicinity is mostly by seed. When sowing, a little manure is placed with it, and it is well watered until it shoots, from which period it requires nothing further. It bears fruit at from three to five years, which ripens from May to August, (according to the situation of the tree.) The roots extend to a great distance under ground, and shoots make their appearance at intervals, which are allowed to remain, thus doing away with the necessity for transplanting or sowing. As the fruit ripens, herds of goats, sheep, and cows are taken out; a man beats the tree with a long pole, and the nuts fall and are devoured voraciously by the cattle. In the evening they are driven home, and when comfortably settled in the yard they commence chewing the cud and throw out the nuts, which are collected each morning as soon as the cattle have departed upon their daily excursion. I have heard it remarked that the nut passes through the stomach of the animal; but this is only a casualty and not a general rule. Large quantities are collected by women and children, which are well dried; the hull is taken off and stored for the camels and mules traveling in the winter. They are considered very nutritious.

The process of extracting the oil is very simple. The nuts are cracked by the women and children. The kernels are then parched in a common earthen vessel, ground in handmills of this country, then put in a pan, a little cold water sprinkled upon it; then it is well worked by the hand (much the same as kneading dough) until the oil separates itself, when the refuse is well pressed, which completes the process. The oil is let stand and the sediment removed. The cake (in which a good deal of oil remains) is generally given to the milch cows or goats. Some of these Argans are in clusters, others single trees.

☞ Our doctrines are — feed the earth, and it will feed you — feed the apple tree, and it will yield fair fruit.

We select the following from a large number of similar notices with which we have been favored from time to time by our cotemporaries:

We improve this opportunity to call the attention of our agricultural friends to the New England Farmer, published in Boston, as one of the most valuable publications of the kind in the United States. There are few farmers so well informed that they might not derive advantages from its perusal, a hundred fold beyond its cost. It is published monthly, each number containing 48 large octavo pages, at only $1.00 a year.—[Hampshire Gazette, Mass.

New England Farmer.—The August number, as usual, is filled with matter of great importance to the farmer. There are no better works reach the home of the agriculturist than this. Its articles are timely, able, and instructive—and its illustrations are fine.—[Telegraph, Penn.

New England Farmer.—The New England Farmer is a first rate monthly, devoted to agriculture, horticulture, and their kindred arts and sciences, which we unhesitatingly recommend to our farmers and reading community. Each number contains about forty pages, and the last two we have read with pleasure, finding them filled with practical, valuable and instructive articles. Several who have examined the numbers we have received were much pleased with them.—[Monmouth Inquirer, N. J.

New England Farmer.—This is one of the best agricultural papers the farmer can find. It is well adapted to the wants of the farmers in New England, and should have an extensive circulation among them.—[Greenfield Republican, Mass.

☞ We omitted last week to credit the article headed "Farm Work for September," as we should have done, to the best Agricultural paper in New England, the N. E. Farmer. It was so good we supposed all would know where it came from.—[Amherst Cabinet, N. H.

The New England Farmer, a monthly devoted exclusively to Agriculture and kindred subjects, making a fine volume of 576 pages a year. The Farmer is edited by Simon Brown, assisted by Frederick Holbrook and Henry F. French, published by Joel Nourse, Quincy Hall, Boston, at $1.00 a year in advance. The Farmer continues to maintain its high and well-earned reputation.—[Ohio Farmer.

New England Farmer.—We advise our agricultural friends who are in want of a work devoted exclusively to their interests, without being mixed up with the notions of old fogies on politics, to subscribe for the New England Farmer, which is published in a pamphlet form, monthly, at $1.00 per annum. Joel Nourse, publisher, Quincy Hall, Boston.—[Plymouth Rock, Mass.

☞ The excellent article on our last page for "Farmers' Work in March," is from the New England Farmer, one of the most valuable and sterling papers to be found in this country, always filled with valuable information, and a paper from which we can always clip much interesting matter.—[Woburn Journal, Mass.

New England Farmer.—The April number of this useful agricultural work has been received, and merits the praises that have been so universally bestowed upon it. It is, in fact, the cheapest agricultural work in the Union. It is published monthly at Boston on the first of each month, in book form—devoted, exclusively, to agriculture, horticulture, and their kindred arts and sciences. Each number contains 48 pages, making at the end of the year, a neat volume of 576 octavo pages. Terms $1 per annum in advance. All orders and letters should be addressed to Joel Nourse, Quincy Hall, South Market Street, Boston, Mass. —[Norristown Register, Penn.

☞ The New England Farmer, for March, has come to hand in good season and this number fully sustains the excellence of those preceding it. It presents a valuable index for the farmer's use, besides a great variety of valuable miscellaneous reading, which cannot fail to interest those pursuing other vocations than the tilling of the soil.—[Statesman, Vt.

☞ The New England Farmer, from the columns of which our readers have seen many good articles in the Mail, is one of the best agricultural papers, for the common farmer, that comes to our table. It has recently been much improved, and in addition to the weekly is now issued monthly, at $1 a year. Mr. Simon Brown, the editor, successor to the late Mr. Cole, seems to have caught the full idea of the actual wants of the farmer.—[Eastern Mail, Maine.

☞ In the paper of this week will be found a finely written article upon "The Farm in November," which is the leading article of the November number of the New England Farmer, which has just come to hand.

Those of our farmers who do not subscribe for this work, we recommend to do so. It is among the best monthly publication going.—[Suffolk Gazette, N. Y.

New England Farmer.—This is another good agricultural paper, and we take pleasure in recommending it to the public. It is devoted to agriculture, horticulture, and their kindred arts and sciences, embellished with numerous engravings. The matter is mostly original, and from the best agricultural writers of the day.—[Expositor, Mich.

New England Farmer.—This excellent agricultural periodical, under the editorial charge of Simon Brown, Esq., assisted by Frederick Holbrook and Henry F. French, is a work which recommends itself to the attention of every farmer. This monthly cannot fail of a good support under its present management, and we hope it will meet with the success it so much deserves.—[Dover Gazette, N. H.

New England Farmer.—This valuable weekly paper, chiefly devoted, as its name indicates, to practical farming intelligence, has no superior in the excellence of its agricultural essays, and in the general tone of its news and miscellaneous departments. The two selections on our outside of last week, under the caption of "Farm Work for May," and the "Garden," should have been credited to the New England Farmer, and are fair samples of the ability and good taste exhibited in the management of the paper. It is edited by Simon Brown, Esq., formerly of Newport, in this State. Many of its best correspondents are also from New Hampshire.—[Manchester (N. H.) Democrat.

New England Farmer.—We are happy to renew our salutations of cordial brotherhood with this excellent agricultural and miscellaneous newspaper, with its first issue for the new year. And there is no paper out of the State that furnishes more reliable and valuable information, and we are always happy to see it on the farmer's table with our own sheet. The New England Farmer is edited by Simon Brown, Esq., with Hon. Frederick Holbrook and Henry F. French, Esq., as associates, (a strong team,) and is published by Joel Nourse, Boston, at $2.00 per annum.—[Granite Farmer, N. H.

☞ We exchange with a goodly number of Agricultural papers, most of them of established merit and usefulness; but among them all we peruse the columns of none with more interest and comfort than those of the New England Farmer. There is a good deal of old-fashioned home fire-side feeling infused into its language, which reminds us of the capacious hearth and glowing winter fires of long ago, while in the elements of progression and practical usefulness it ranks among the first journals in the land.—[Carlisle (Pa.) Herald.

New England Farmer.—An Independent Journal, devoted to Agriculture and General Intelligence. Terms $2 per annum in advance—Joel Nourse proprietor, Boston, Mass.

This is the best paper for a farmer we have on our exchange list, and most cordially do we recommend it. To the intelligent, enterprising young man, just beginning the world, this paper may be the means of saving fifty dollars a year, independent of the pleasure derived from reading it. To such we say, don't fail to send your two dollars for the New England Farmer. —[Ellsworth (Me.) Herald.

☞ Every farmer in Vermont, besides patronizing the papers of his own State and vicinity, should take the New England Farmer. We have known it from its "youth up," and know it to be a first-rate paper; always filled with choice and important matter for the man who would cultivate his farm and his mind at one and the same time, and do it in the best manner. We shall treat our readers to many articles from its columns.—[Vermont Watchman and Journal.

New England Farmer.—We consider this broad and beautiful sheet among the best, if not the very best family journal in the United States. The bold and manly tone evinced by its conductors upon all questions of State and National polity, renders its opinions worth adopting, whilst as a newspaper, its columns afford as abundant a supply as is needed by any family. In the immediate vicinity of its publication, its markets and local news must be particularly valuable, but the world-wide importance of its agricultural statistics is what will specially recommend it to our readers. The price is only $2 per annum, which, for a paper of its size, style of print, and manner of getting up, is exceedingly low.—[Louisville (Ky.) New Era.

☞ The New England Farmer, we would remind our readers, is an excellent agricultural paper, and now is just about the time to make the editor a "New Year's Gift," of renewed subscriptions and some new subscribers.—[Greenfield (Mass.) Republic.

☞ We know of no better agricultural paper in the Union, than the New England Farmer, published at Boston. It should be in the hands of every farmer who would know how to farm. —[Banner of the Union, Phila.

New England Farmer.—We call attention to the advertisement of the New England Farmer. This is probably the best weekly agricultural paper in New England. Its editor, Simon Brown, Esq., is a practical farmer, and its other writers are men who write from practical knowledge of the great branch of industry to which the paper is mainly devoted. Those of our people who wish for an agricultural paper published out of the State, will not find a better one.—[Concord (N. H.) Patriot.

New England Farmer.—This is one of the best agricultural journals in this country, and should be in the hands of every person engaged or interested in any one of the various branches of agriculture.—[Exeter (N. H.) News-Letter.

PROSPECTUS

OF THE

NEW ENGLAND FARMER,

For 1855.

The present number commences the Seventh Volume of the NEW ENGLAND FARMER, Monthly, and it is the intention of the publisher that it shall exceed the former volumes in the value and variety of its contents and the beauty of its illustrations.

It is designed to make the NEW ENGLAND FARMER the largest and best magazine of its class in New England, and to supply such an amount of information on all subjects connected with

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As to furnish the Farmer with a complete Encyclopædia of his profession. For this purpose no pains will be spared in studying the wants of the Agriculturist, and everything that will aid his occupation and increase his prosperity will be carefully noticed. Besides the reading matter, beautiful Engravings will be used in every number to illustrate and embellish the work.

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WEEKLY,

Is published at the same office, every Saturday, and contains, besides the Agricultural matter, a large amount of Miscellaneous Reading, News Items, full and correct Market Reports, and a variety of Literary and General Reading, adapted to the wants of the farmer and his family.

TERMS.—$2.00 per annum, in advance.

Postmasters and others who will forward four new subscribers on the above-named terms, for either publication, shall receive a fifth copy for one year.

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QUINCY HALL, SOUTH MARKET ST.,
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THE

NEW ENGLAND FARMER:

A MONTHLY

AGRICULTURAL JOURNAL,

FOR THE FARM AND GARDEN.

SIMON BROWN, EDITOR.

FREDERIC HOLBROOK, OF VERMONT, HENRY F. FRENCH, OF NEW HAMPSHIRE,

ASSOCIATE EDITORS.

Without encouragement of AGRICULTURE, and thereby increasing the number of its people, any country, however blessed by nature, must continue poor.—SWIFT.

Vol. VII. FEBRUARY, 1855. No. 2.

BOSTON:
JOEL NOURSE, PUBLISHER,
QUINCY HALL.

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Postage.—The Postage on the Monthly Farmer to Subscribers, is now twelve cents a year, to be paid quarterly or yearly, in advance, at the office where it is received.

DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

VOL. VII. BOSTON, FEBRUARY, 1855. NO. 2.

JOEL NOURSE, Proprietor, Office....Quincy Hall. SIMON BROWN, EDITOR. FRED'K HOLBROOK, } Associate HENRY F. FRENCH, } Editors.

CALENDAR FOR FEBRUARY.

"Loud howls the wind along the vale!
Shipwreck and death are in the gale!
Soon, weary travellers, as they go,
Are wildered in the trackless snow,
And dread, at every step, that sleet
And snow may be their winding-sheet."

FEBRUARY, in this latitude, is usually a blustering month. DECEMBER commonly gives us a strong nip of Winter for a week or two, then it seems to rest awhile in order to get breath. Then JANUARY comes with occasional warm south winds and showers; bare spots are in the fields and runners grate harshly on the gravel roads; silver streams glide on the clear ice, and the robins, perhaps, leave the thick swamps and make us a visit; but it is a brief one, for the north wind suddenly assumes the mastery. The elm tops sway and yield to its fierce breath; all is frigidity and congelation again; the condensed ice cracks like pistol reports, and wakens the drowsers in the chimney corners.

So all the Months have their peculiar characteristics. The agreeable author of the "Mirror of the Months" says "some one has said of the Scotch novels, that that is the best which we happen to have perused last. It is thus that I estimate the relative value and virtue of the Months. The one which happens to be present with me is sure to be that one which I happen to like better than any of the others. I lately insisted on the supremacy of January on various accounts. Now I have a similar claim to put in in favor of the next in succession. And it shall go hard but I will prove, to the entire satisfaction of all whom it may concern, that each in her turn is, beyond comparison, the 'wisest, virtuousest, discreetest, best.' Indeed I doubt whether, on consideration, any one (but a Scotch philosopher) will be inclined to dispute the truth of this, even as a logical proposition, much less as a sentiment. The time present is the best of all possible times, *because* it is present—because it *is*—because it is something; whereas all other times are nothing. The time present, therefore, is essentially better than any other time, in the proportion of something to nothing. * * * The cleverest Scotch philosopher that ever lived has said, in a memoir of his own life, that a man had better be born with a disposition to look on the bright side of things, than to an estate of ten thousand a year. He might have gone further, and said that the disposition to which he alludes is worth almost as much to a man as being compelled and able to earn an honest livelihood by the sweat of his brow! Nay, he might almost have asserted that, with such a disposition, a man may chance to be happy even though he be born to an estate of *twenty* thousand a year! But I, not being (thank my stars) a Scotch or any other philosopher, will venture to go still farther, and say, that to be able to look at things *as they are*, is best of all. To him who can do this, all is as it should be—all things work together for good—whatever is, is right. To him who can do this, the present time is all sufficient, or rather it is all in all; for if he cannot enjoy any other, it is because no other is susceptible of being enjoyed, except through the medium of the present."

HEAD WORK.—We trust the suggestions in last month's calendar to improve the head as well as to occupy the hands, have had due consideration, and that this important work will be continued through the month of February.

PLANS.—The work of spring and summer should be arranged now while there is leisure to consider it in all its bearings. What fields shall be devoted to corn, oats, barley, wheat, potatoes? Where the peas, beans, turnips, carrots? Where the early vegetables, the tomatoes, radishes, egg-plants, cabbages? What breadth in each of the principal crops, how much seed per acre? What trees shall be planted, and what location shall they occupy? How much stock shall be summered, which oxen or cows sold or fattened, and how many swine kept? Shall the Garden have a small assortment of choice pears—the Bartlett, Seckle, Vicar of Winkfield, Beurre d'Aremberg, Bloodgood, Louise Bonne,—a few choice raspberries and currants, together with a grape vine or two of the best varieties? Shall beds be formed for permanent use to be stocked with the best early vegetables, parsnips, onions, carrots, beets, radishes, tomatoes, asparagus, celery, lettuce, parsley, and patches for cucumbers, early squashes, cabbage, cauliflower, melons, beans and peas? These will promote health, and afford a constant supply of delicious summer food, save the money in your purse, and embellish the ground about the house.

Sheep and Lambs require especial care in February. Leave it optional with them to go out or remain under cover; feed liberally with hay—sweet clover hay they relish highly—and give them occasionally any juicy roots cut finely, or a few beans, or a little corn or barley. They will then bring strong lambs. Throw into their yards also, evergreens of pine, hemlock or spruce boughs.

Cattle and horses will need the *card* as well as timely and liberal feeding; milch cows, especially, will find much benefit from the use of the card.

When the plans alluded to are made, the stock all fed and warm, the wood-pile lusty in its proportions for another year, and the children with lessons well conned for the morrow's recitation, are mingling in the social conversations around the evening fire, what prince or potentate but would envy the farmer his simple and pure delights, his hours of unalloyed domestic bliss!

February, cold and rough as it is, is none too long for households such as these.

For the New England Farmer.

THE POTATO—CURCULIO—SHAD-BUSH.

Mr. Editor:—I am going to write something about the potato, the curculio, and grafting the shad-bush; I hired one-fourth of an acre of land in a field where some four others hired from one-fourth to three-fourths of an acre each, and all planted potatoes, the rows running north and south. After my first hoeing, I put on ashes and plaster, and the piece east of mine was served the same. The potatoes that I planted were not large, and were cut, the same as on the piece east, and the piece next west, (three-fourths of an acre,) the potatoes were whole and mostly large that were planted. A short time before my last hoeing, I read in the *New England Farmer* that salt mixed with plaster, in proportion of two of plaster to one of salt, would prevent potatoes from rotting. I therefore, after my last hoeing, (I hoed them three times,) applied the salt and plaster, and in less than three days there was a perceptible difference between mine and the other potatoes; mine were much greener and more thrifty than the others. I had from my one-fourth of an acre forty-one bushels of good sized potatoes for cooking, and only three bushels of small ones; and the three-fourths of an acre west of mine, that was planted with whole potatoes, had some eighty bushels only, and from their appearance after being dry, whilst lying on the ground, I should think, at least, that one-fourth were too small to cook. The potatoes east of mine were better than those west, and mine were judged to be much the best in the field. What made the east potatoes better than the west? Was it the one application of the ashes and plaster, or was it because they were cut before planting? And what made mine the best in the field? Was it the third hoeing or the salt? I leave it with the lovers of good potatoes to find out by trying the experiment.

One word about destroying the curculio. I commenced last spring, soon after my plum trees were out of blossom, to throw dry ashes on them in the morning when the dew was on; I applied it but a few times, when I read in the *Farmer* that some one had saved his plums by throwing on soap suds; I therefore applied the suds until I read the next *Farmer*, where I read that some one had saved his plums by the use of lime water. I then used the lime water, and succeeded in raising a large crop of very nice plums, whilst one of my neighbors raised but very few, and that one by the use of a few applications of lime water. So you see that lime water would answer the purpose if applied often enough.

In the *Farmer* of Nov. 25th, there is a letter from "Far East," recommending the shad-bush as a substitute for the quince for raising dwarf pears. I will tell you how near I came to getting a dwarf from a shad-bush. Some twenty years since I was grafting pears in the back part of my lot, and having a scion or two left, I inserted one in a shad sprout, some three-fourths of an inch through and six from the ground, merely for pastime, not even thinking it would grow; but the first time I passed that way I discovered that it was growing nicely. I watched it through the summer, tied it up occasionally, and in the fall, after the leaves had dropped, I measured it, and it had grown over seven feet, and had much more the appearance of a grape vine than it did a dwarf. It grew and bore pears some two or three years and died, but the pears were always dwarf, quite small of their kind.

Yours ever, Not Far West.

Shelborn, Dec. 28, 1854.

Pears.—We would call the attention of the reader to the article on "Pears," as it is from a gentleman who has given the subject much attention. We welcome him heartily to our columns, and hope to hear from him as he proposes.

The Centenarians.—Forty-seven persons died in the United States during the past year over 100 years old. Of these, one was 128, one 130, and one 146. The eldest was a negress. United ages of the forty-seven, 5268 years.

For the New England Farmer.

GRASS CROPS.

REPORTED TO THE CONCORD FARMERS' CLUB BY JOHN B. MOORE.

MR. PRESIDENT:—Of all the crops grown in New England, perhaps the Grass crop is the most important to the farmer, from the fact that for the whole year the cattle, horses and sheep depend mainly upon the grass and hay for their sustenance.

And the farmers procure just what they want from keeping this stock, and what they must have, that is, a large quantity of manure for producing this and their other crops and increasing the fertility of their land.

In no other way can they get manure so conveniently as by consuming the grass and hay on their farms. He who improves the capacity of his farm for producing grass for feed, or curing for hay, and then consumes the same, or if he sells it, buys manure to replace what it would make, and also takes good care of the same, will, in a short time, increase the productiveness of his land, and not only enable him to raise larger quantities of grass, but also of grain, roots, and other vegetables.

And in fact, nearly every thing in our New England farming depends on the grass and hay, for if we do not have a good supply of these, of course we cannot keep a large stock of cattle, and we must keep this stock or we shall not have much manure. If we do not by manure enrich our soils, we shall fail to produce good crops, and poor crops do not pay.

As to the manner of cultivation, we do not expect to impart any new ideas, but merely to state some of the best methods now in use with which we are acquainted.

For high lands, spring seeding with small grains, particularly barley, or planting corn, cultivating it with a flat surface and seeding to grass in July, perhaps succeeds better than any other way on very dry soils.

On low, moist upland, and reclaimed meadow, plow in August and September, roll down the furrows, put as much compost manure as you can spare—not less than twenty ox-cart loads to the acre, and more would be better—harrow well both ways, then sow about 1½ pecks herdsgrass, and 3 pecks red-top seed per acre; cover with a brush—harrow, pick the stones, and finish by rolling down smooth. We formerly sowed a larger quantity of seed, but found after the first year that it made too thick a sward.

Clover we consider a good crop to grow on dry soils; and probably the best way to produce it is to sow it with the other grass seeds. On dry land the first crop will be increased largely by the addition of the clover; this we would advise to use for home consumption, and not for market.

Your committee are satisfied that we must depend upon our low, moist soils, for most of the grass that we cure for hay. Upon almost every farm there is more or less low-land, covered with brush, or wet meadows and swamps, which are unproductive in their present condition, but may easily be made the best and most productive grass land on our farms, and after being reclaimed, will produce much more grass with the same manure and labor than dry soils.

Then as to curing, cut when in full blossom if you can; where there is a large quantity to be secured, it is necessary to begin on a portion as early as possible, so as to enable us to get through before it is over-ripe. There is, however, quite a difference of opinion with good farmers as to the time when it should be cut, so as to make the most nutritious hay.

We would also say that it has been our experience in reclaiming meadows and swamps, that to produce a large crop of good grass, it is necessary that the land be well and thoroughly drained, and have a good dressing of sand or gravel, or a large portion of the same in the compost manure applied before and after seeding. Otherwise, however well manured, there will be a weakness of the straw, which will cause it to fall and rot before it has time to grow to be a full crop.

We have also examined the crops of grass grown on meadows reclaimed in various ways, and in our opinion the too common practice of burning the entire top soil is a bad one. Although the first crop will probably be good, the land and after crop will be much larger and better without the burning than with it; burning leaving a tendency to moss and wild grass.

There are acres of this burnt land in our own town, that, after one or two seasons, have run back to wild grass, and which it will require nearly twice as much manure to keep in good condition than it would if it had been reclaimed in a different manner.

You will see the importance of this leading product of our farms; with it, we are enabled to supply ourselves with a plenty of beef, mutton, and milk; the product of the last named has become a very large business near the cities and large towns, our own town furnishing not less than 1200 gallons daily for the Boston market, besides milk and part of the butter and cheese for our own consumption; all of which is almost entirely dependent on the grass, and hay made from the same.

Then let us increase largely the quantity and quality of this product of our land, not feeling satisfied to produce any less than two tons per acre, and, as before stated, by largely increasing the same, we are, by the manure made from it, enabled to increase every cultivated product ot our land.

For the Committee,
Dec., 1854. JOHN B. MOORE.

THE OLD FARMER'S ALMANAC.—JENKS, HICKLING & SWAN, Boston, have published number *sixty-three* of this old favorite of the farmer. It tells us almost everything about the stars and eclipses, and how to cast the interest on our bank stock; tells us of the commencements, American Presidents, uncurrent bank notes; when to look out for a snow storm, and a high tide, and has twelve capital little sermons on its calendar pages. And then it asks a "heap of such curious questions," and gives "lots" of good advice in various ways. How should we know anything when to plow or sow, kill our hogs or salt the pork, without the "*Old Farmer's Almanac* by Robt. B. Thomas?"

A LESSON IN ITSELF SUBLIME.

A lesson in itself sublime,
A lesson worth enshrining,
Is this—"*I* take no heed of time,
Save when the sun is shining."
These motto words a dial bore,
And wisdom never teaches
To human hearts a better lore
Than this short sentence teaches.
As life is sometimes bright and fair,
And sometimes dark and lonely,
Let us forget its pain and care,
And note its bright hours only.

There is no grove on earth's broad chart
But has some bird to cheer it;
So hope sings on in every heart,
Although we may not hear it;
And if to-day the heavy wing
Of sorrow is oppressing,
Perchance to-morrow's sun will bring
The weary heart a blessing.
For life is sometimes bright and fair,
And sometimes dark and lonely,
Then let's forget its toil and care,
And note its bright hours only.

We bid the joyous moments haste,
And then forget their glitter—
We take the cup of life, and taste
No portion but the bitter:
But we should teach our hearts to deem
Its sweetest drops the strongest;
And pleasant hours should ever seem
To linger round us longest.
As life is sometimes bright and fair,
And sometimes dark and lonely,
Let us forget its toil and care,
And note its bright hours only.

The darkest shadows of the night
Are just before the morning;
Then let us wait the coming light,
All boding phantoms scorning;
And while we're passing on the tide
Of Time's fast ebbing river,
Let's pluck the blossoms by its side,
And bless the gracious Giver.
As life is sometimes bright and fair,
And sometimes dark and lonely,
We should forget its pain and care,
And note its bright hours only.

For the New England Farmer.

REMARKS ON COWS.

MR. EDITOR:—I was much pleased with the good sense manifested in your description of a cow for family use, in your last paper. Just after I read that, I took up an excellent paper, published at Manchester, N. H., in which was copied from the London *Agricultural Gazette* some remarks about "an extraordinary cow." I was curious to know what was deemed an "extraordinary cow" in London. This animal is said to have yielded fifteen quarts of milk daily, on grass feed alone, four months after calving, of a quality to give eleven and a half pounds of butter in a week. Pretty well this, but how does it compare with what is said of some of the cows and heifers of your own Middlesex? If I do not mistake, gentlemen there have boasted of their Devon Stock, as yielding products far better than this. Milk of a quality to give a pound of butter to each and every *four quarts*,—on grass feed alone. This may be so, but I never could give full credit to the statement, and do not now. It seems to me hardly possible to find a cow that will give milk, that will yield more than a pound of butter to each and every eight quarts of her milk—whatever may be the breed. If I could find a herd of cows that would do this, I should be satisfied. INQUIRER.

Dec. 25, 1854.

For the New England Farmer.

MORTGAGES—SHADE—CRITICISM.

"*A Medley.*"—As this article in the January *Farmer* is devoted to myself, I wish for a little more space in reply than would be admissible in the narrow limits of my usual monthly review; not so much from any desire or intention of controversy as for an opportunity of giving the reasons for my caution against mortgages. Agreeing perfectly with friend Durand, that every writer should be allowed his own "say," I have never supposed that any of my running comments could be considered as an infringement on this privilege, especially as I fully believe in the correctness of the sentiment, bluntly expressed by old Dr. Johnson to one of his sensitive friends, "Depend upon it, sir, no man was ever written down but by himself."

Regarding the subject of mortgages as one of vital importance to the young farmer, and believing that a false step on this ground is often the most fatal and irretraceable of his whole course, I am induced to give somewhat in detail my personal experience with mortgages, although by so doing I expose myself to the charge of egotism—but, "how can we reason but from what we *know*."

For the sake of distinctness, we will allude to our experiences in the mortgage line, as they occurred in the order of time.

No. 1. The small fund of money that I saved of my earnings, for some three or four years after twenty-one, was devoted to a debt on the homestead, that descending from my grandfather, was lived under by my father, and, after myself, was assumed by two others of his sons; yet the old farm had to be sold at last, and the family name of your humble "commentator" passed from the title-deeds to the "ancient domain." Among the earliest recollections of my boyhood, that of the efforts of my parents to "raise" the means for paying "the interest" is not the most pleasant. That favorite colt, that web of cloth spun by my mother's own hands and needed by the backs of her boys, and many other things that went, not to kill, but merely to keep alive, that mortgage, are among the indelible impressions of my "first experience."

No. 2. I loaned some money to a man in Michigan, whose land was paid for, and who had put up one of the neatest log-houses I ever saw. Three split logs, placed one above the other, were of such size as to raise the walls sufficiently high for the roof, giving a comparatively smooth ceiling, and a look of solidity and comfort within, far superior to the usual style of smaller, unsplit logs. The good woman "shuddered" at the idea of a mortgage, and, with tears said to her husband, "It will turn us and our children out of the home we have labored so hard to make comfortable." But, almost in the language of

Mr. Durand, he replied, "I cannot afford to let our land lie idle,—there is no *if* nor *and* about it,—I must have a team and do something." He did have a team, and soon told me he had thirty acres in wheat, but then he must have a large barn and other "improvements," which left nothing from his crops for the mortgage. The result was, that long after the mortgage was "out," not having enough of the Shylock in my composition to "foreclose," an exchange for newer and cheaper land was effected; and if the good woman and her children were not exactly turned out of house and home, as she predicted, they had to exchange the old home, with its garden and beautiful young orchard, for one without these comforts, and without the associations that cluster around the "first place." Nearly twenty years have elapsed, and that mortgage is still alive—only a part of the principal, to say nothing of interest, then loaned, has found its way back to my pocket.

No. 3. Secured by a mortgage on a small New England farm, I loaned a small sum of money. The mortgagor never paid a cent of either principal or interest, but long after the notes were "over due," they were paid in full by a son of his who was a merchant's clerk, and wished to give his parents a home.

No. 4. Lastly, for a few years as mortgagor, I have tried "living under" a mortgage on a small farm. I had but just shaken it from my shoulders, when I commented so warmly upon Mr. Durand's recommendation of mortgages, and made the awkward, but, I think, very natural comparison of the "nightmare." With a pretty large family to support, with semi-annual interest to meet, with a grim "principal" looming up in the rear but *not* in the distance, and with the income of the labor of but a single pair of hands, if a man don't experience something like the "nightmare," then what does he experience?

So much for my trials of mortgages. From what I have seen of their operation in other hands, I believe that my four experiments may be taken as a fair average of the whole, were their history to be as honestly written.

We thence infer that of every four mortgages which are fastened on farms, two, or one-half of the whole, unhouse the mortgagor or his descendants; and of those that are paid, one-half are indebted to trade, or some source other than farming, for the means with which it is done.

Did I, then, make "an uncommon great bugbear out of very small materials?" "A little shows what a great deal means;" and on this principle I wish to be excused for parading so much of my personal history, and for my appreciation of the "materials" it affords, not to "frighten" but to caution.

In contrast with the mortgage principle in general, and with that of my No. 3 in particular, as well as to illustrate the truth of the adage, that "where there's a will, there's a way," even without a resort to mortgages, I wish to give the outlines of the history of another Michigan farmer, who had just money enough to "take up," at government price, an eighty-acre lot of timbered land, pay for a cow, a small pair of oxen with yoke and chain. Felling a few trees, his neighbors helped him put up a cabin. With his axe and a borrowed auger he made chairs, tables, milkpans, and a bedstead which was corded with strans of bark.

He then went bravely at the giant oaks but it was slow work to clear off their huge trunks, and he soon saw that himself and wife, his oxen and cow might starve before he could get in and harvest a crop. He was ashamed to beg, and would not borrow. So he broke up "housekeeping," left his land to "lie unimproved," and let himself by the month to purchase provisions for a future campaign against the noble old forest monarchs. After clearing land a few years, but making rather slow progress, he exchanged his eighty acres of timbered land for one-half as many of "Openings" which were mostly subdued. Here he soon got a start in the world; improved his buildings; bought more land; collected about him the conveniences of life, and years ago, admitted to me that he had as much property as he wanted.

I will here remark, that I regard a mortgage for the purchase-money of real estate, as quite a different thing from one for "improvements," or conveniences of any kind. Two of my four mortgages were given for the purchase-money of the premises; and both these were paid off. But enough has been written on this topic for once, and we leave it here.

When I wrote the caption of this article, I thought of making some remarks upon Mr. Durand's stricture on my comments on "Improving Soils by Shade." If he will read the first column of that article on page 499, November *Farmer*, in connection with his own strictures, I am willing to abide the decision of the tribunal to which he appeals, waiving my right to the "closing argument." The space he occupies with comments on a few lines from my review, will suggest to him the impossibility of my profiting much by his advice. To place the leading, or some striking idea of an article in a position that shall excite curiosity, or to present some additional hint or fact, has been the humble object of my monthly medleys. Anything like the plan suggested by Mr. Durand would occupy quite too much space. If I have done his articles injustice by my brief extracts, or by unfair criticism, it was certainly unintentional. Of all the many writers whose labors have done so much to give the *Farmer* a reputation for sound sense and practical value, he is the last one with whose feelings I would intentionally trifle. A READER.

Winchester, 1855.

A HOME FOR ALL.

Under this attractive title, the house of *Fowlers and Wells*, Publishers, 142 Washington St., and 308 Broadway, N. Y., have issued a neat volume of 200 pages, written by O. S. FOWLER, one of the firm. It describes the gravel-wall plan, of building, and discusses the following heads:—1. Nature's Building Materials. 2. Wood is objectionable. 3. Brick. 4. The Lime, Gravel and Stone Walls. 5. Selection of the material. 6. Lime, its proportion, and mode of mixing. 7. Placing and working the mortar-bed. 8. Relative cost of the gravel-wall. 9. Foundations. 10.

Mode of placing the boards for boxes. 11. Scaffolding. 12. Width of walls and their solidity. 13. Door and window frames. 14. The top of the wall. 15. Chimneys, ventilation, &c. 16. Outside and inside finish. 17. Cost of the gravel-wall. 18. The quality of this gravel-wall, and, 19. Vermin are excluded from it. The work is not confined, merely, to the subject of constructing buildings on this plan, but speaks of the requisites of a good, comfortable home, and some of its embellishments. Those who intend to build may find this book valuable to them.

For the New England Farmer.

PLOWING LANDS IN AUTUMN.

Mr. Editor:—I was surprised to see my name in your paper under a private communication requesting you or some friend to write, (if you thought best) against a prevalent practice which I considered detrimental to good husbandry, viz.: Plowing lands on which corn and all hoed crops had been raised the past summer, and which had been highly manured the previous spring. I regret that I was understood in that communication to be against fall or autumn plowing, excepting the lands above named. I know that all grass or stubble lands should be plowed early in the fall, before the frost kills the vegetation. The difference between plowing such lands before or after the vegetation is killed is similar in point of economy, to plowing in a field of clover in its green state, or letting it remain until it is nothing but dry straw.

I was as much surprised at the remarks of your correspondent, "A. K. P. W.," as he was at mine. I did not believe there was one farmer in New England who had given the subject due consideration, that would say the manure left on the surface by the last hoeing, say in the middle of July, and remained there until the middle of November, (four months) would retain much if any of its fertilizing properties, or that it would be good economy to plow up a fresh supply of inexhausted manure to cover the little that remained on the surface which had been already exhausted in promoting the growth of the last crop. Such a course would expose that fresh supply to be exhausted by inhalation for the ensuing six months, without a particle of benefit to the next crop. "Money makes money," it is the same with manure.

"A. K. P. W." says that fall plowing kills the insects which destroy the crops. It may be so, but a New England farmer who will not husband his manure to the best advantage, will not long have crops for himself or insects to destroy. He also says that lands plowed in the fall stand the drought better than if plowed in the spring. If so, that must be attributed to some peculiarity of his soil.

As manure is the great desideratum, I would ask, what is the best method of rendering *one dressing* of manure the most valuable for the several succeeding crops?

Yours respectfully,
H. S. Perrin.

Orfordville, Dec. 18, 1854.

For the New England Farmer.

SELECTION OF APPLES.

In grafting or planting an orchard, it is of the utmost importance to obtain the best varieties under cultivation, those which are productive, the fruit of the first quality and the trees hardy, and vigorous growers. In selecting, we should approach as near as possible to this standard, although there are but few varieties that unite all these qualities. Varieties are so numerous at the present day, that recommending a selection for cultivation is rather perplexing and difficult. There are many kinds which rank as first-rate, although there is a difference of opinion with regard to some of them; this is not surprising as tastes differ. An apple which one might pronounce first-rate, and which, indeed, might be so, another, perhaps, would call second-rate: yet there are kinds with respect to which nearly all are agreed, and which are universally known as first quality; these should be extensively propagated. Having been engaged in grafting, many years, I have had an opportunity to learn something by experience and observation of many varieties. Although my knowledge of the subject is limited, compared with many others, I propose to name a few varieties for cultivation, having been familiar with them all for years, and found them all things considered, among the best. I can with confidence recommend the following list, nearly all of which may be found described in Cole's fruit book.

Early Williams,
American Red Juneating,
Gravenstein,
Shirley Apple, or Foundling,
Spice Sweet,
Hubbardston Nonsuch,
Willis Russet,
Minister,
Mother,
Baldwin,
Early Bough,
Leland Pippin,
Porter,
Superb Sweet,
Danvers Winter Sweet,
Rhode Island Greening,
Roxbury Russet,
Seaver Sweet,
Jewett's Red,
Priest Sweeting.

Leominster, Dec., 1854. O. V. Hills.

For the New England Farmer.

THE DIANA GRAPE.

Mr. Brown:—In the "Transactions of the Middlesex County Agricultural Society for the year 1853," which I had the pleasure to receive from you, I find the following, speaking of the fruit exhibited: "Hovey & Co. had a plate of the famous Diana Grapes. They seem to be a cross between the Sweetwater and Hamburg. We understood that they are ripened with difficulty in the open air." Let us examine this statement and see if it is correct. When I first saw the above I was inclined to think that it was a mistake of the printer—that unfortunate class who have to shoulder so much blame—but if it was, why did not the proof reader find it out and correct it, or did he not know but what all that was said would apply to this variety of grape? That the Diana is a famous grape I will not deny; it is bound to become more so: but that it is a cross between the Sweetwater and Hamburg I do deny, as it bears no relation to either of those varieties in any respect. It was raised from a seed of the Catawba, by Mrs. Diana Crehore, of Milton, Mass., who received the grapes from Squire Seaver, of Roxbury, who had a very flourishing vine of that variety, which, though its original owner is dead—still lives. It was originated several years ago, and shown at the Mass. Hort. Society, when their rooms were in Tremont street, and named by the Society, in honor of its originator. Until within the last five years it has attracted but little attention. "We understood that they are ripened with difficulty in the open air." A greater mistake could not have been made, and I am surprised that any Committee that had had any experiences or associated with those who had, or even read the reports of the different Agricultural and Horticultural Socieites, should ever prepare such a statement for the press. The great merit of this variety is in its early ripening,—a fortnight at least before the Isabella, and four weeks before the Catawba. The greatest grape grower of Massachusetts says it will be fifty years before we get a grape superior to the Diana, that it will ripen when the Isabella wili fail. I will not accuse the committee of making this wrong statement for any selfish or wrong motives, nor am I disposed to find fault with their report merely for the sake of finding fault, but because I saw that such a report was calculated to do mischief by leading people astray. I think it will be hard to find a better hardy grape, or one that ripens earlier.

Newton Centre. J. F. C. H.

For the New England Farmer.

LIME—SALT—THE CORN CROP.

Messrs. Editors:—I have read something of Prof. Mapes' ideas of using salt as a manure in connection with lime. The lime is to be slaked with a solution of common salt, and to be used for sowing broadcast with oats, etc. We wish to know whether this manure "will pay" when lime costs $3,00 per tierce and salt 5s. per bushel. Also we want to know how much of the preparation "will pay" to lay on an acre, and, also, why it will not answer to apply it to the hill for corn? I have tried the old fashioned method of raising corn, and raised from 25 to 40 bushels to the acre, until I think I can improve the crop by improving the method of cultivation. The following is the plan I propose "doing the corn business" next year. I have a piece of land with a smooth, rolling surface, and moderate southern slope. The soil is somewhat sandy, light, with heavy clay bottom; it has been plowed usually 4 inches in depth, and the crops taken off since the "memory of the oldest inhabitant;" consequently the surface was nearly exhausted to the depth of four inches when I plowed the field two years ago, manured broadcast with about 25 loads to the acre, and planted to corn, producing a fair yield. Last year it was manured broadcast and plowed in, producing a very heavy crop of oats. About 16 loads to the acre were plowed in for the oats. On this piece I propose raising corn next year. I shall spread and plow in (ten inches deep) 40 or 50 loads of stable manure to the acre, harrow well and plow again crosswise; harrow again, and strike the furrows 3 feet apart and about 8 or 10 inches deep, then cross-furrow the same depth. Then take a bag of guano (Peruvian) on one side, and a bag of seed-corn on the other; with a hoe I will fill the furrows where they cross each other; mix a little of the guano with the soil, and plant my corn.

About the second or third hoeing I will put into each hill a spoonful or more of guano and hoe it in. I have always put a portion of my manure into the hill, sometimes as much or more than I spread before plowing. My corn has always been remarkably thrifty, until about time for the ears to form, when the plant would seem to want sustenance to finish its work, consequently I would get a full growth of "fodder" and a moderate yield of corn. I think the corn plant is benefited by the manure in the hill during the time its stalks are growing, say in May, June and July, when the periphery of the feeding roots extend far beyond the circumference of the hill leaving few feeding roots near the centre of the base of the plant. Now it is not to be wondered at if the manure is chiefly placed in the hill, that the plant should be thrifty while the extremities of the roots are working their way through the hill; nor is it any more strange that the earing should be moderate when their supplies are furnished by roots which have extended their feeders far and wide, until their extremities meet and mingle with the roots of neighboring hills. The fulness of the ear and kernel must in a great measure depend upon the supply of nourishment found by the roots after they have extended from the hill. If the manure be mostly spread and plowed in, we expect that it benefits the crop most when it is most needed, viz.: when it is forming the kernel.

The corn crop draws the base of its support from the ground; its roots extend wide and deep; their microscopic filaments absorb only the moist minute particles of nourishment which pass along the vessels undergoing chymification and chylification, a complete process of digestion, until it is fitted and entirely adapted to invigorate the system that has taken it. It converts the gross particles of the earth into sugar for the stalk and milk for the seed.

Chemically viewed, the corn plant is a laboratory compared to which Prof. Mapes' is but a shadow. Its crucibles are self-formed from its germ; its furnace the glorious sun; its material elicited from the gross matters that compose the crust of the earth itself; its experiments always successful, and its product what no human art can equal—a golden ear of corn.

Physically, it may be compared to the human digestion, first dissolving its food, then separating its chyme and chyle, and conducting the refined matter along various channels and through various organs, eliminating all the secretions necessary to its own growth until it is lodged in such parts, where it is needed to form and sustain the perfect man.

The growth of the stock is of less consequence than the production of the ear. The stock is mostly formed when the supplies are largely drawn from the hill, and the ear when the material is gained mostly from the adjacent soil, in the latter part of July, August and early in September.

The largest growth of stocks is not necessary to the greatest production of corn, yet it is necessary to get a certain amount of vigorous stock in a healthy and thrifty state, when the ears set and the fall feeding is to commence to form the kernel. If an adequate supply of nourishment is placed within reach of the plant at the

PROSPECTUS

OF THE

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For 1855.

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A MONTHLY

AGRICULTURAL JOURNAL.

FOR THE FARM AND GARDEN.

SIMON BROWN, EDITOR.
FREDERIC HOLBROOK, OF VERMONT, HENRY F. FRENCH, OF NEW HAMPSHIRE,
ASSOCIATE EDITORS.

Without encouragement of AGRICULTURE, and thereby increasing the number of its people,
any country, however blessed by nature, must continue poor.—SWIFT.

Vol. VII. FEBRUARY, 1855. No. 2.

BOSTON:
JOEL NOURSE, PUBLISHER,
QUINCY HALL.

STATE BOARD OF AGRICULTURE.

The State Board of Agriculture held a session at the State House on Wednesday, Thursday and Friday, the 3d, 4th and 5th of January. Every part of the State was represented, and the reports of the several committees were presented, discussed and referred. They show the improvements commenced, completed and anticipated. Among those completed are a building for the accommodation of the numerous small tools used by the boys, such as forks, rakes, hoes, shovels, &c.; a room for blacksmithing, one for depositing carts, sleds and large farming utensils, one devoted to corn-cribs, and for shelling of sufficient capacity to contain two thousand bushels, a carriage room, carpenter's shop, and a room for preserving and storing seeds. Another building has been completed sufficiently large to give one hundred swine ample yards, feeding and sleeping rooms; overhead is a large room for storing bedding or litter, and for keeping apples, pumpkins, small potatoes, or any of the early perishable articles which make up a considerable portion of the provender for swine in the autumnal months. This building is accommodated with capacious cisterns for receiving swill from the family of nearly six hundred at the Reform School, and for steaming vegetables or grain if thought desirable. In the front part of this building is a commodious slaughter-house, with a well and pump, and such conveniences as are necessary where slaughtering is required as often as once a week. The work is all done in a plain but substantial manner, and the building affords such facilities for swine-breeding and raising as have enabled the Board to find a profit of some $200 in the course of nine months in this department of the farm. New and substantial stone walls have been erected, drains made, and various expedients devised for the increase and preservation of manures.

The amount of produce sold from the farm during the year amounts to four thousand seven hundred and seven dollars and thirty-eight cents, and the amount of labor done on the farm for permanent improvements and for labor done for the Reform School amounts to one thousand eight hundred and thirty-six dollars.

The operations of the Board have been limited and impeded by the want of proper buildings to board the workmen, and suitable buildings must either be purchased or erected for this purpose. The farm now lies mostly on one side of the buildings, and the Board propose to ask the Legislature to purchase certain contiguous lands and buildings, all conveniently located, to obviate the present existing difficulties. If this request is granted, it will afford pasturage and mowing so as to double the number of cows now kept. During the last year, pastures have been hired, and large amounts of grass purchased and cured in order to increase the cows so as to furnish the supply of milk demanded at the School. But with this extraneous help this demand has not yet been supplied. More land and more buildings are needed before the business of the farm can be successfully prosecuted.

At the meeting of the Board of Agriculture on Thursday morning, Gov. WASHBURN was present, and presided until he was called away to attend to other duties at the Council Chamber. He said—

"Before leaving the Chair, as it was probably the last time he should have the honor to meet with them in that capacity, he would say a few words at parting. He should be doing injustice to them individually, as well as to the cause in which they were engaged, if he forbore to express to to them the high personal regard which his intercourse with them had so much strengthened, and the interest he felt in their efforts to promote the Agriculure of the Commonwealth.

It had been a source of profound satisfaction to him that he had been permitted to take a humble part with them in urging forward the work in which they were engaged. And he counted it by no means the least of the honors connected with the place which gave him the privilege of meeting and acting with them, that it had brought him into intimate relation with gentlemen who constituted that Board, and to know, by personal observation, their devotion to the purposes, for which the Board was created.

He was happy to believe that the interests of agriculture were assuming that importance in the public mind, which their extent and magnitude demanded. Its position among the other callings and pursuits of our citizens was becoming better understood and appreciated in the common wealth than it had hitherto been.

Not a little of this was owing to the character and influence of the members of this Board, and men like them, who had brought to it character, intelligence and practical experience. The need of some measure to elevate agriculture and promote its success in the commonwealth, had long been felt. How it could best be done has long been a desideratum in the policy of government. The plan which had now been adopted seemed to him, in the present state of science and of public sentiment, the best, or perhaps, the only one that could be devised.

It brought to the subject the combined knowledge and experience of gentlemen from different parts of the commonwealth, who, by full conference with each other, were able to test theories, and elicit what the public want to know, the truth of these as determined by accurate experiment and sound observation. It provided, too, for a body of men whose interests were the same with those of every farmer in the commonwealth, and whose judgment and accuracy could not be impeached by suspicion of improper bias or self-interest. He could not but congratulate the people of the commonwealth in the promised results of this system. Nor could he, with less satisfaction, congratulate them that they had been made the honored instruments in carrying out so interesting and important an experiment. He doubted not they would continue to pursue the objects for which they had been appointed, and would find their reward in a proper appreciation of their services by a generous and confiding community.

In taking leave of his associates at that Board, over whose deliberations he had been permitted to preside for a brief period, he again assured them of his sentiments of high personal respect, of his best wishes for their success in every pursuit of life, and for their long-continued happiness and prosperity.

He thereupon left the chair, which was resumed by the senior member present, and took leave of the Board."

For the New England Farmer.

FALL PLOWING—PLASTER.

Mr. Brown:—There has been a number of articles in the *Farmer* recently upon "Fall Plowing;" my experience has led me to be in favor of plowing at that season. I used to be troubled by the worms eating my corn; but for the last three or four years, I have plowed the ground late in the fall, where I was going to plant corn the next year; and since this has been my practice, I have not been troubled at all by the worms. I think that by plowing late in the fall, the worms and eggs of insects are exposed to the frost and are thus destroyed.

PLASTER AS A FERTILIZER.

A great deal has been said in regard to the benefit derived from the use of plaster of Paris, and I suppose justly said, too, for I know that it is a great absorbent, and useful in many of its applications; but my experience the past season has led me to call in question the utility of this sovereign combination of lime with sulphuric acid as a fertilizer, as applied to crops. Last spring I planted a patch of potatoes, and between the hills I planted peas; both came up well and grew nicely; but about the time of the first hoeing, I put a large table-spoonful of plaster around each hill of potatoes and peas, in six rows, and left the rest of the piece without any plaster. The result was, where I put plaster on the peas, they were stone-dead within a week or two; but where I did not put plaster, I had a fine crop. When I dug the potatoes, those where the plaster was applied fell short of those where there was none, at the rate of one bushel in eight rods; the land was a sandy loam.

I had another piece of potatoes, on like ground, where I applied plaster to the whole of it in the hill; the potatoes on this piece were light, excepting two or three rows under the shade of a fence. I had still another piece of land, a moist, rich loam, on which I planted potatoes; to one-half I applied plaster in the hill. Where I put plaster, I got 21 lbs. of potatoes; where I did not, I got 23 lbs., or in that proportion.

It is a question with me whether the plaster that I used was good. I have no means of analyzing. I did not know before that crops were ever the poorer for the application of plaster. The plaster came from Vermont.

Yours, &c., E. P. Woods.

Newport, N. H., Dec. 20, 1854.

For the New England Farmer.

OFFICIAL VISITS TO FARMERS.

To the Hon. M. P. Wilder:—Dear Sir,—In view of your position, experience and influence, from connection with Agricultural Societies and with the State Board of Agriculture, you will excuse me for making further demands upon your attention by the following suggestions. It is not uncommon for men who have given their principal attention to *one branch of business*, for the purpose of money-making, especially if they are bright, thorough men, to be superior, able to exhibit plainly—to demonstrate, as matters of fact, the results of their experience—to give reliable instruction, directions and examples of their skill and success in that one branch. This *they are free to do*, it may be as philanthropists, to benefit others, but surely as men. It is human nature. Said a sailor, "you know we all love to talk about that which lies nearest our heart." He has done so to get more perfect knowledge of his darling theme, or to get credit for his superior skill and work. I have found just such men of concentrated genius and high standing in various occupations. I have one in my eye, who could tell you, and show the best constructed stables and piggeries; the process of making and saving the most and best manure; by confining his attention to stock and swine growing, what feed and management would give the largest return for the outlay of every dollar and dime, and 60 shoats growing finely, at a cost of one and a half cents each per day; his good breeding sows, from three to five years old; another lot that will average 350 lbs., at eight months old, at a cost of four and a half cents per pound; and 1200 loads of manure, with his method of making and applying it. This is one man, and his profits are large by pursuing one branch of business, well understood.

This article is written to express my conviction of the justness of his views, viz., that "the best interests of the State might be promoted by selecting an individual in each county to visit the farms reported to be good, and learn from the farmers their modes of cultivation, and present the facts ascertained through the press, under the appointment and pay of the State."

Some ten years since the writer was appointed, by the "Hampden County Agricultural Society," to prepare an article for their next anniversary on the subject of "*manures*," which he did, and also recommended to the society the employment of a discriminating man, for a year, to visit the best farmers, and collect facts deemed most important as improvements and principles in the various departments of agricultural science and practice, committing them to writing on the spot; and from these items to prepare and publish, in tract form, a plain, explicit statement and direction on each one; and to circulate these little manuals in all the towns, so that *each farmer*, by means of these and his lectures, may be reached, excited and instructed in a course of visits, to the great benefit of his family and community. This suggestion was made in view of the entire destitution of many families of any reading or lectures upon the subject of their vocation, and also of the lively interest that would be kindled up by a visit and paper, telling them what others are doing, and what they *may* do, that would be a subject of conversation and inquiry hardly to be expected without such an agency. That was proposed for immediate adoption, in view of the maxim,—

> "Greatest good is soonest wrought;
> Ling'ring labors come to nought."

If in this latitude, and with the increase of periodicals and lecturers, *something* is doing, still an anxious observer will sigh in view of the slow progress of *ten years*, and the languid pulsation of very many yet poor farmers and their boys, like old-fashioned nurseries, *never budded.*

These things must be looked at; let them be *taken in hand by the State.* Men may be found who can bring head and heart and hand to this work, with proper inducements, whose influence will tell on society as certainly and as strikingly as the operations producing that splendid array of productions from the mechanic's shop, the nurseries and the farms do on our State Fairs.

Yours truly, Benjamin Willard.
Lancaster, 1854.

For the New England Farmer.

CULTURE OF THE PEAR.

For more than twenty years has the "pear fever," as it is called, been raging in this part of New England, and many and solemn have been the predictions that "the thing would be run into the ground," and the market so far glutted by over-production, that pears would not pay for the cultivation. Nurseries have been established in almost every town—thousands of trees have been sold yearly at auction and at private sale—and yet, strange to say, the price of pears in the market is higher this year than it ever was before. A dollar a dozen for handsome dessert pears is an ordinary price. When it is borne in mind that the pear crop is less affected than any other fruit crop of this climate by the casualties of the seasons, the facts here stated are sufficient to show that there is no danger of over-production.

A widow lady who owns a small farm of fifty acres not fifty miles from Boston, has received more money the past season from the product of two pear trees, than from any one other product of her farm. When good fruit of this kind sells as high as $15, and even $20 per barrel, who can doubt its profitableness over any and all other agricultural or horticultural pursuits? The mistaken idea that it takes half a life-time to bring pear trees into full bearing has deterred many from engaging in their cultivation; while others have gone into the business hap-hazard, without knowledge, or experience, or perseverance, and pronounced it a humbug, because it was with them, as a matter of course, a failure. To those however, who have any taste for pomological pursuits, and have patience to learn something from their own observation and the experience of others, the pear culture promises a rich harvest. It takes some years, it is true, for pear trees or pear stocks to come into full bearing; in fact, the longer fruiting is protracted, the better is the evidence of the healthfulness of the tree, and of its ultimate productiveness. Some fruit-growers consider very early bearing as an evidence of disease in the tree; and it is often the case that the transplanting of a young tree will set it to fruiting for a year or two, when it will apparently recover its decimated roots, and take upon itself a vigorous growth for a number of years without bearing at all. Let no one discard such a tree. It is only preparing itself for a ten-fold better ultimate harvest.

There is an impression abroad that all the old varieties of pears are "running out" or becoming worthless. This is a mistake. It is true that the St. Michael or Doyenne, Crassanne, Chaumontelle, and other favorite old pears, have deteriorated; but this is believed to be the result of a too high cultivation, rather than any intrinsic change in the nature of the tree. Certain it is that the *Jargonelle* (the "Espargne" of Rosier, and the "Gross Quisse Madame" of most of the old French writers,) is the oldest pear extant, and is still not only a prolific bearer, but is the best of all the earlier dessert pears. It is believed to be identical with the *Pyrum Tarentinum* of Cato, and the *Numidium Græcum* of Pliny, and has come down to us through more than two thousand years,

> "Unaltered by the frost of time,
> Or changing circumstance of earth,"

in all its original delicacy and excellence. Some of our nurserymen, we are sorry to say, have substituted by mistake the Quisse Madame, a pear of English origin, for the Jargonelle—and we see quantities of the former sold under the latter name in the markets. The two very much resemble each other in shape, in the growth of the wood, and in the time of maturing the fruit, but the Quisse Madame is much inferior in size and quality. The true Jargonelle is almost invariably reddish next the sun.

There are other early or summer varieties worthy of cultivation, such as the Julienne, the Burlingame, the Bergamot, the Sucre Verte, the Dearborn Seedling, the Sabine d'Ete, the Belle of Brussells, Souvrain d'Ete, &c. There is also Petit Muscat, the fruit of which grows in clusters, and ripens in July. It takes about a dozen of these pears to make a mouthful, and they are often sold by the pint or quart at the fruit stands. It is not a very profitable variety for the market.

For an autumn pear, the first to be named is the Bartlett, or, as it is called in England, Williams Bon Chretin. This fruit is generally believed to have originated in Berkshire, England, and was extensively cultivated by Mr. Williams, near London, whose name it bears there. It was first cultivated by Enoch Bartlett, Esq., of Dorchester, which accounts for it synonyme here. Another account represents it as a pear of Flemish origin. In the various properties of vigorous growth, great productiveness, delicious flavor, and adaptedness to all soils, and almost all climates, no other pear can equal the Bartlett. It produces equally well in the north of Scotland and in the island of Malta.

The next best autumn pear, in all respects, according to the writer's experience, is the Flemish Beauty; and then come the Louise Bon de Jersey, Duchess d'Angouleme, Maria Louise, Seckle, Napoleon, Heathcot, Dix, Capiaumont, Beurre d'Amaulis, Beurre Bosc, Fondante d'Automne, Belle et Bonne, Beurre Spence, Cushing, Edgewood, Stevens's Genessee, Harvard, Moccas, Urbaniste, Wurtemburg, &c. All these are good varieties, and produce well on most soils. The Napoleon is apt to rot at the core, but is otherwise a superb pear and a prolific bearer.

Of winter pears, the best in all respects is the Beurre Diel. In some few cases it has proved a shy bearer, but it is usually prolific, and is remarkable for the healthy and vigorous growth of its wood. The fruit is large, very heavy, very juicy, sweet and delicious. The Easter Beurre somewhat resembles the Buerre Diel, and is also a most excellent variety. The Passe Colmar is a very delicious fruit, and the tree a great bearer. Then come the Beurre d'Aremberg, the Glout Morceau, Van Mons Leon le Clerc, Winter Nelis, Souverain d'Hiver, Buerre Rance, Ne Plus Meuris, Bezi Vaet, &c. The Vicar of Winkfield, (otherwise known as "Monsieur le Cure," or "Clion,") is quite extensively cultivated in this region. It is not by any means a first rate dessert fruit, but it is handsome, sells well, and the tree is very prolific. The fruit-grower can therefore hardly afford to discard it.

There may be other varieties than those here named, which the experience of fruit-growers has proved equally worthy of cultivation; but here is variety enough in all conscience, and all these the writer believes may be safely trusted by those desirous of engaging in the culture of the pear.

Why it is that our farmers will wear out a lifetime in accumulating broad but sterile acres for their children, when they might with much less toil leave them a far richer dowry in full-bearing orchards, is not the present object of the writer to discuss. He purposes, however, at his earliest convenience, to give the readers of the *New England Farmer* (with the leave of its editors,) his views, drawn mostly from his own observation and experience, in regard to the proper culture of the pear, and of fruit trees generally. If anything he can say shall have the effect to inspire a better appreciation of the culture of fruit, he will feel himself amply rewarded.

Somerville. E. C. P.

WHAT A MAN CAN LIVE UPON.—The vegetarians will find an argument for their antipathy to flesh, in the result of some experiments made in the Glasgow prison, where it was found that ten persons gained four pounds of flesh each in two months, eating for breakfast eight ounces of oatmeal made into a porridge, with a pint of butter milk; for dinner, three pounds of boiled potatoes, with salt; for supper, five ounces of oatmeal porridge, with one-half pint of butter milk, which costs two pence three farthings per day. Ten others gained three and a half pounds of flesh, eating six pounds of boiled potatoes daily, taking nothing with them but salt. Ten others ate the same amount of porridge and buttermilk, without the potatoes, as the first ten, but for dinner had soup; they lost one and a quarter pounds of flesh each; and twenty others, who had less potatoes, but half a pound of meat for dinner, diminished in size likewise. From this, it would appear that potatoes were better diet than smaller quantities of animal food, at least for persons in confinement; the meat eaters, if they had been allowed ordinary exercise, which an individual usually takes when in freedom, might have exhibited a very different result.—*Philadelphia Ledger.*

DAIRIES.

FROM THE MIDDLESEX TRANSACTIONS.

It was a general remark, as well by the visitors as in the committee, that the exhibition of cattle this year was much inferior to that of the last, and of the several preceding years. No doubt this was owing to the effect of the severest drought ever remembered in the country, which in many towns cut off the common, and by far the best food of the cattle, reducing their yield of milk, and severely injuring their appearance. Ample and well watered pastures seem to be essential to the production of the best and largest quantity of milk and butter, and equally so to the health of the cow. Soiling, feeding out grains, &c., can seldom be resorted to with profit when the farmer has at his command sufficient pastures for his cows to range over and feed at will. It is to the above cause, no doubt, that the liberal premiums offered by the Massachusetts Society for promoting agriculture, failed to bring out the show of stock that our society confidently hoped to have seen at this exhibition. Let us hope that the effect of these premiums which are to be offered, until they are awarded, will another year be such as to satisfy the expectation of the public and as to induce the trustees of the Massachusetts Society to repeat them. We may mention in this connection that the same society have decided to extend premiums of similar amount to such other county societies throughout the Commonwealth as have not already received them, the next year; and the large sum of $1200 to be competed for under the auspices of the Worcester society, at Worcester, by all the counties in 1856.

There were five dairies of cows offered this year for premiums. One of these, Mr. Buckminster's fine herd of Devons, was deservedly admired by every observer, but could not be considered by your committee because the proprietor failed to make any statement of its history or products as required by the regulations of the society. Four other gentlemen also exhibited cows, but as they, with one exception, also failed to comply with the regulations prescribed by the society, the committee could not consider them in reference to premiums, however well they might be thought to merit them. Only one of these dairies produced butter, that of Mr. A. G. Sheldon, of Wilmington. His carefully prepared statement will be read with interest and profit. But in the opinion of the committee, the produce was not sufficiently large to entitle him to a premium. It will be seen that for his butter, which is certified by competent judges to have been of the finest quality, he received only thirty cents per pound, although prepared in the best manner, and laboriously stamped. This should not be so. Many consumers in Boston pay from forty to fifty cents a pound, besides in some instances paying expenses by express from Philadelphia for butter, no better, to say the least, than his. If he, or others who feel a just pride in producing the best butter, would also take a little pains in marketing it, they would be more justly paid for their exertions. His cows are all described as natives. We suggest to him to add one Alderney to his herd. Her cream will give color and character to his butter, and enable him to advance his prices from one-third to a half in a market where it would be appreciated, and where there is a demand far exceeding the present supply. Mr. Viles, of Waltham, exhibited a dairy of eight cows, partly natives and partly grades of Ayrshire. His account of their produce, which is extraordinary, is submitted. The dairies of Mr. John B. Moore, and of Mr. George M. Barrett, of Concord, were of a high order, showing well selected stock and great production of milk.

And here we may be allowed to express some doubts whether the statements of extraordinary produce of cows, as given by amateurs in the public prints, and which sometimes find their way into agricultural reports, have not done something to discourage the efforts they are intended to stimulate. In a late number of the journal of the Royal Agricultural Society of England, there is a communication from Col. Le Couteur, of Jersey, giving the produce of his celebrated prize cow "Beauty," and of several others, of the best specimens of the Jersey or Alderney cows. He says that "Beauty," in her best milk, yielded eleven pounds thirteen ounces of butter a week from one hundred and thirty-three quarts of milk (nineteen quarts a day,) being a pound to about eleven quarts. Some of the other cows gave twenty-six quarts of milk a day for a short period, and fourteen pounds of butter a week, or a pound to thirteen quarts of milk.

This contrasts strangely with the frequent statements made of the products of the same breed of animals here. From four to six quarts of milk, it is often said, give a pound of butter. And these statements come from parties whose accuracy and truthfulness no one can for a moment doubt. But what are the circumstances? Is this extraordinary amount of butter made soon after the dropping of the calf and on good pasturage only? Or is it made from farrow cows, or the strippings or morning messes? and are the cows highly fed with stimulating food? No doubt these statements, made sometimes without all the details necessary to make them well understood, have had a serious effect on the competition for our prizes. Would it not be well to make it a condition that cows offered for premium shall in the trial months, say from May to September, have no other feed than pasturage and green fodder? Without such a general rule, it is to be feared that there can be but little fair competition, and that many people will decline it altogether for whose advantage it is equally proposed. In this department, as well as others, careful readers cannot fail to observe that amateur, and not practical farmers, generally bear off the prizes, to the disappointment and often permanent disgust of less favored competitors. These gentlemen amateurs would add greatly to the obligations they have already laid the community under, if they would enter their fine stock for exhibition only, and leave the prizes to parties to whom they are a pecuniary object as well as a proper ambition.

The committee have observed with great pleasure the successful efforts of many gentlemen in the county to introduce the best foreign stock to their neighbors and the public. Already the effect is obvious to the observer when passing over the county in any direction. Fine cattle of the Jersey, Ayrshire, Devon and Durham breeds are often seen mingled with the best native stock. Much of this improvement is also to be attributed to the "Massachusetts Society for Promoting Agriculture," which has with well considered liberality placed bulls of various breeds in different parts of the Commonwealth, for public use.

For the Committee,
James Brown, *Chairman.*

HONOR TO THE TOILING HAND.

All honor to the toiling hand,
  Or in the field or mine ;
Or by the harnessed fire or stream,
  Or on the heaving brine ;
Whatever loom, or bark, or plow,
  Hath wrought to bless our land,
Or given around, above, below,
  We owe the toiling hand,
Then honor—honor to the toiling hand !

It battles with the elements,
  It breaks the stubborn sword ;
It rings the forge—the shuttle throws—
  And shapes the social board.
It conquers clime—it stems the wave—
  And bears from every strand
The sweetest, best of all we have,
  Gifts of the toiling hand,
Then honor—honor to the toiling hand !

For the New England Farmer.

THE CONCORD GRAPE.

This grape, which has created a great sensation among the horticulturists, but which I have never tasted, (and perhaps may not for years,) must be a good fruit; but whether so desirable as claimed, years only can decide. Should all the horticultural papers in New England extol it, its reputation would not be decided. From ten to fifteen years' cultivation can only put the matter at rest. Though the Isabella may have faults, it cannot be easily supplanted or rivalled among the mass of fruit-growers. How long would it take to establish the fact that we had an apple that would equal the Rhode Island Greening, the Baldwin or the Russet, or a pear that would rival the Bartlett?

The Isabella grape is handsome and good, but there are many locations in which it will not ripen. A neighbor of mine, whose soil is elevated and who has a vine sheltered on the south side of his house, has seen his grapes fail only once in the past six years—the frost then blighting them when they were of a light cinnamon color. A western sun upon this vine, I think, would make it more certain, though not bad as it is. But there are many locations, where a person happens to have a garden, in which this grape would not ripen more than half the seasons, and some where it would never fully mature.

If Mr. Bull has introduced a grape that is as good and as handsome as the Isabella, and surer to ripen, he merits the thanks of lovers of this fruit, and should have a good profit on his vines. At present I have not one of them; but to see one growing in a place already prepared in my garden, is a "consummation devoutly to be wished." D. W. L.

W. Medford.

WHAT SHALL WE EAT?

With one of the hardest winters for the poor that has stared them in the face for many years, and now with this cold month of December upon them in all its rigor, it behooves them to look about for something to eat less costly than roast beef and plum puddings; for the two dollars a day, that some of them seem to think would endure forever, has been cut off suddenly. It is estimated that fifty thousand persons have been thrown out of employment, since the cold weather commenced, by that cause alone. An equal number have been thrown out by failures and general stagnation of business. It is to be a winter of suffering to those who are dependers upon the labor of their hands for daily bread for themselves and families. Whatever will tend, not to cheapen food, for that we cannot hope for, but to show them what to eat, less expensive than their accustomed diet, should be at once adopted. For this purpose we offer a few suggestions:

Fresh meat of all kinds, at the prices at which butchers retail it, is not economical food. Meats will average over a shilling a pound. Salted meats are cheaper than fresh. In economizing food, meat should be fried or boiled. If you would get the most substance out of fresh meat, make it into soup, or stew, or pot-pie. In making soup, soak your meat some hours in cold water, and boil it in the same. Thicken with beans, peas, rice, barley, hominy, or broken bread. The best meat is the most economical for soup. Do not buy bones.

If you boil meat to eat, never put it in cold water. Let it be boiling when you put the meat in the pot. Do not buy fresh meat a pound or two at a time. Buy a quarter or a half a sheep. You get it at half price. Beef or pork by the quarter is a quarter cheaper.

Do not buy your bread ready baked. It is sixpence a pound. Dry flour is the same. Home-made bread is far more nutritious. Make use of corn meal, oat meal, Graham flour, hominy, and cracked wheat for bread, in preference to fine wheat flour, both for health and economy. Here are the relative retail prices per pound of these articles: Wheat flour, 6c; Graham flour, 6c; cracked wheat, 6c; corn meal, 2½c; hominy, 3c; oat meal, 4½c. The latter is the most nutritious breadstuff known. Look at the Scotch with their oat meal porridge—as robust a set of men as ever lived.

Hominy we have before given our opinion upon. It is an article that no family, desirous of practicing economy, can do without. It is a very cheap, healthy, nutritious food. It costs only half the price per pound of flour, and contains no moisture, while the best of flour holds from twelve to sixteen pounds of water in a barrel. Cracked wheat is excellent for sedentary persons. That and Graham flour should be used in preference, at the same price per pound, to white flour, because more healthy and more nutritious. One hundred pounds of Graham flour is worth twice as much in a family as one hundred and thirty-three pounds of superfine white flour. Corn meal costs less than half the price of flour. It is worth twice as much. It is not so economical in summer, because it makes so much fire to cook it. The first great error in corn-meal is in grinding it too much, and next in not cooking it enough. Corn-meal mush should boil two hours; it is better if boiled four, and not fit to cut if boiled less than one hour. Buckwheat flour should never be purchased by a family who are obliged to economize food. It is dear at any price. It must be floated in dear butter to be eaten, and then it is not healthy. Oat-meat is as good in cakes as buckwheat, and far more nutritious. But it is more nutritious, and is particularly healthy for children, in the form of porridge.

The cheapest food is white beans. They are worth from $1,50 to $2 a bushel, and retail for 8 cents a quart. Prof. Liebig has stated that pork and beans form a compound of substances peculiarly adapted to furnish all that is necessary to support life and give bone, muscle and fat, in proper proportions, to a man. This food will enable one to perform more labor, at less cost, than any other substance. A quart of beans, 8 cents, half a pound of pork, 6 cents, will feed a large family for a day, with good strengthening food. And who that can raise a reminiscence of old times in New England, but will remember that glorious old-fashioned dish called "bean porridge?" We should call it bean soup now. Four quarts of beans and two pounds of corned beef would give a good meal to fifty men—one cent a meal.

Potatoes should be utterly abandoned by the poor this winter. They cannot afford to eat them. Potatoes are selling at four dollars a barrel. That is $1,87 a bushel. At retail the poor pay $2,50 a bushel, or about five cents a pound, twice the price of corn meal; five-sixths as much as fine flour; one-fifth more a bushel than beans, while one bushel of the latter are worth for food as much as a cart load of potatoes. All other vegetables are still more uneconomical than potatoes. Carrots are the cheapest of all roots. But they are but little used as human food, though very nutritious. They are partially used in soup. They are good simple boiled and eaten with a little butter, or meat gravy. They should always form an ingredient of soup. They are sold by the quantity at 50 cents a bushel. Turnips are dear at any price. There is more nutriment in a quart of carrots than in a bushel of turnips. They are 82 per cent. water. Cabbage is nutritious, but very expensive. Buy very little of it if your money is short. Dried sweet corn is an article that all persons are fond of. It sells for $4 to $5 a bushel, which weighs 42 lbs., and would retail at about 10c a pound. We don't know about the economy of eating it, as compared with other breadstuffs, but as compared with course vegetables, it is immeasurably cheaper. A pound of sweet corn cooked to be eaten with meat, is worth more than three pounds of extra meat. It is also very excellent and nutritious mixed in the bean soup.

Another very excellent, nutritious, economical article of food is dried peas. They are generally a little more costly than beans, but some think they will go further. At any rate they are good for a change. It would be good for a change for those who are put to their wit's end to know how to get food enough to feed their families, if anything that we have said shall put them in a way of changing some of their old habits, so as to buy such articles as will satisfy hunger, while giving them health and strength, for less than half the money they are now expending, though living only half comfortably.—*N. Y. Tribune.*

POULTRY CHEAPER THAN PORK.

Mr. Editor:—Allow me to say a few words in your paper in behalf of that much neglected class of stock that are usually found upon a farmer's premises without "a location," if they have a name. They are not thought worth enough to have quarters of their own, and so shift for themselves upon the first fence, tree, or out-house that affords rest to their feet. Even in these days of hen-fever, and of feathered stock imported from the farthest India and beyond, there are thousands of farmers who have no shelter for their fowls better than an apple-tree or open shed. "The merciful man is merciful to his beast;" and it would be a good lesson for the improvident owner of these abused bipeds, if he could exchange places with them for one December night, when the thermometer stands below zero. The sty must have a place and the grunters be made comfortable, with a water-proof roof and a warm bed; for pork cannot be made to good advantage without proper attention. Pork-growing is a main reliance to pay the rent of their hired hands. Poultry is more plague than profit, and the less care bestowed upon them the better. We intercede for the "biddies," and beg for them a little of the attention that is lavished upon their more gross and less attractive neighbors. Give them a fair trial, and they will pay any farmer for his care much better than pigs, and will supply his table with greater luxuries, and at a cheaper rate. And to establish this position, we will tell you a tale quite as literally as some others founded on fact.

In the year 1850, my poultry yard cost me—

In stock	$39 96
In food for fowls	39 81
Total	$79 77
It produced in eggs	34 92
" in manure	5 00
In stock at close of year	50 00
Total	$89 92
Deduct expense	79 77
Profit	$10 15

It produced about this time 91 chickens and fowls, weighing about 300 lbs. In other words, the yard paid three cents a pound for all the poultry used in the family. When did a porker ever pay you for the privilege of eating him? Even Charles Lamb's roast pig will have to knock under to the biddies.

In 1851 my yard cost me—

In stock	$54 50
In food	65 56
Total	$120 06
It produced 268 dozen eggs	48 76
" 5 loads manure	5 00
Stock on hand at the close	113 00
Total	$166 76
Deduct	120 06
Profit	$46 79

Besides this profit, it produced 61 fowls, weighing about 200 lbs. In other words, it gave 23 cents per pound for the privilege of being eaten. Was roast pig ever so gracious as this? We have tried pork-growing for the same two years, and dealt as liberally by the sty as by the poultry yard, but with a very different result. The account stands thus:—

Bought a pig May 13, 1850	$4 80
Food	15 02
Total	$19 82
Deduct 8 loads of manure	8 00
	$11 82

He produced 206 lbs. of pork. Divide the cost by this, and it gives a little over five cents per pound, as the cost of production.

He must be a very skilful farmer who can produce pork for four or five cents a pound. Most of the pork made in New England costs six or seven cents, the full market price; so that there is no advantage in producing it, except as it makes a valuable manure upon the farm. The farmer who can make pork for nothing, or what is better, can make it pay him thrice the market value for being eaten, is a man yet to be heard from. The best husbandry will probably never be able to accomplish this with any breed of pigs.

But the fowls will pay their own way, with proper care, and will give you a certain amount of poultry, without other cost than your own trouble in rearing them. Each hen, well cared for, will yield a clear profit of at least $1, or, in other words, will give you eight pounds of poultry for nothing.

We say, then, especially to the boys, take care of the "biddies." Let them have a warm place for a roost, a dry cellar, if possible, in winter, a variety of grain and a little animal food, clean water to drink, and lime in some shape for egg-shells. Take care of the fowls, and they will take care of you.—*Cor. Plough, Loom and Anvil.*

Drew's Rural Intelligencer.—A new paper published at Augusta, Maine, by Wm. A. Drew, and filled with everything good in the way of agriculture, horticulture and the news of the day. Brother Drew holds a strong pen, is acquainted in the field in which he is to trot, and will not come out second best.

The Practical Farmer. Vincennes, Indiana, S. Burnett, Editor. Harvey, Mason, & Co., Publishers.—It gives evidence of plenty of mind, but wants more ink. Our copy was all "*friars.*" We cordially grasp your extended hand, brother Practical.

"HOME SICK FOR THE COUNTRY."

Since the Almighty placed our first parents in the garden of Eden, a passion and love for the country has been natural to the heart of man. A correspondent of the *Knickerbocker* gives vent to this feeling as follows:

> "For my part, I am weary of city life, and sigh for the Great Mother. I see the waving of trees, but they are rooted in a church-yard, or grow between flag-stones. I hear the notes of singing birds, but they are pewter canaries at sixpence apiece. I am tired of water running up and down leaden pipes, and through cocks and filters; I want to see it rise like a Naiad, dripping from the well. I am haunted of 'stoops,' and have a sort of green sickness for porches clambered over with greenery. I wish for other flowers than artificial, and desire to look upon rain not as an inconvenience, but as a blessing to the crops.

"I'd kind o' like to have a cot
Fixed on some sunny slope; a spot
Five acres, more or less,
With maples, cedars, cherry trees,
And poplars whitening in the breeze.
"'Twould suit my taste, I guess,
To have the porch with vines o'erhung,
With bells of pendant woodbine swung;
In every bell a bee;
And round my lattice window spread
A clump of roses, white and red.
"To solace mine and me,
I kind o' think I should desire
To hear around the lawns, a choir
Of wood-birds singing sweet;
And in a dell I'd have a brook,
Where I might sit and read my book.
"Such should be my retreat,
Far from the city's crowds and noise;
There would I rear the girls and boys,
(I have some two or three,)
And if kind Heaven should bless my store,
With five or six or seven more,
How happy I should be!"

PULVERISED PEAT.

A most important discovery has been made by an eminent agricultural professor of chemistry, that finely pulverised peat will effectually deodorise the most offensive putrid matter, and destroy the most fœtid odors; in fact, that it possesses the wonderful disinfecting properties of charcoal, that by mixing it with common night-soil in about equal proportions, one of the most valuable manures is made, and proved by experiments not inferior in results to the best South American guano. It may be made at all seasons and stored away for use, or the land dressed with it immediately. This valuable manure may be used as a top-dressing, or drilled, or dropped in with the seed, at the rate of from 700 to 800 pounds per acre, and it may be applied with benefit to every kind of crop. It may be sown with the seeds of all green crops, and it will push them into early and rapid growth. It will also be found highly serviceable in all garden crops, shrubs, and flower beds. If the finely pulverised peat be strewn over the floors of stables, piggeries or cow houses, with a very light covering of straw over it, it will absorb and retain all moisture, disinfect the building of every noxious gas so injurious to cattle, and by its mixture with the excreta from the animals, for immediate use. Sheep folded upon it at night would produce wonderful and most important results to farmers in the vast production of valuable manure. Finely pulverised peat also supplies the ready means of removing all nuisances, thereby promoting the public health—and many years cannot elapse before this important discovery will be adapted to convert all the noxious matter of the country into solid portable manure, without any offensive odor, instead of being carried into streams and rivers, vitiating the water we drink by polluting it with animal and vegetable matter again, by evaporation, impregnating the very atmosphere we breathe and producing an actual loss of the most valuable materials to the agriculture of the United Kingdom, which, if taken in the aggregate from all available resources, can scarcely be estimated at less than 10,000,000*l*, sterling, annually. Further details cannot now be entered upon, but it may be remarked:—let every cottage be possessed of this cheap and valuable article, finely pulverised peat, and his garden may vie with the best in produce and verdure; he may thoroughly manure his own ground and have a large surplus to dispose of to his more wealthy neighbor. Let every small householder see to it, and produce a portable, inodorous, and valuable manure, saleable in every locality. From the palace to the hovel the same means are available, but where water closets, cess-pools, sewers, &c., have to be contended with, time will be required to effect the necessary changes; yet, in the nineteenth century, surely, our enlightened age, with these startling facts before us, will never long permit the foundation of such vast wealth to the country to be floating in the ocean. These remarks are only the outline of this important discovery.—*Gardeners' Chronicle.*

VOYAGE AROUND A PUDDING.

Dr. Bushwhacker folded his napkin, drew it through the silver ring, laid it on the table, folded his arms, and leaned back in his chair, by which we knew there was something at work in his knowledge-box. "My dear madam," said he, with an aboriginal shake of the head, "there are a great many things to be said about that pudding."

Now, such a remark at a season of the year when eggs are five for a shilling, and not always fresh at that, is enough to discomfort anybody. The doctor perceived it at once, and instantly added, "In a *geographical* point of view, there are many things to be said about that pudding. My dear madan," he continued, "take tapioca itself; what is it, and where does it come from?"

Our eldest boy, just emerging from chickenhood, answered, "85 Chambers Street, two doors below the Irving House."

"True, my dear friend," responded the doctor, with a friendly pat on the head; "true, but that is not what I mean. Where," he repeated, with a questioning look through his spectacles, and a Bushwhackian nod, "does tapioca come from?"

"Rió de Janeiro and Para!"

"Yes, sir; from Rio de Janeiro in the southern, and Para in the northern part of the Brazils, do we get our tapioca; from the roots of a plant called the Mandioca, botanically the *Jattropha Manihot*, or, as they say, the Cassava. The roots are long and round, like a sweet potato; generally a foot or more in length. Every joint of the plant will produce its roots like the cuttings of a grape-vine. The tubers are dug up from the ground, peeled, scraped, or grated, then put in long sacks of flexible ratan—

sacks, six feet long or more; and at the bottom of the sack they suspend a large stone, by which the flexible sides are contracted, and then out pours the cassava-juice in a pan placed below to receive it. This juice is poisonous, sir, highly poisonous, and very volatile. Then, my dear madam, it is incarcerated in water, and the residuum, after the volatile part, the poison, is evaporated, is the innocuous farina, which looks like small crumbs of bread, and which we call tapioca. The best kind of tapioca comes from Rio, which is, I believe, about five thousand five hundred miles from New York; so we must put down that as a little more than one-fifth of our voyage around the pudding."

This made our eldest open his eyes.

"Eggs and milk," continued Dr. Bushwhacker, "are home productions; but sugar, refined sugar, is made partly of the moist and sweet yellow sugar of Louisiana, partly of the hard and dry sugar of the West Indies. I will not go into the process of refining sugar now, but I may observe here, that the sugar we get from Louisiana, if refined and made into a loaf, would be quite soft, with large loose crystals; while the Havana sugar, subjected to the same treatment, would make a white cone almost as compact and hard as granite. But we have made a trip to the Antilles for our sugar, and so you may add fifteen hundred miles more for the *saccharum*."

"That is equal to nearly one-third of the circumference of the pudding we live upon, doctor."

"Vanilla," continued the doctor, "with which this pudding is so delightfully flavored, is the bean of a vine that grows wild in the multitudinous forests of Venezuela, New Grenada, Guiana. and, in fact, throughout South America. The long pod, which looks like the scabbard of a sword, suggested the name to the Spaniards; *vayna* meaning scabbard, from which comes the diminutive vanilla, or little scabbard—appropriate enough, as every one will allow. These beans, which are worth here from six to twenty dollars a pound, could be as easily cultivated as hops in that climate; but the indolence of the people is so great, that not one Venezuelian has been found with sufficient enterprise to set out one acre of vanilla, which would yield him a small fortune every year. No, sir. The poor *peons*, or peasants, raise their garabanzas for daily use, but beyond that they never look. They plant their crops in the footsteps of their ancestors, and, if it had not been for their ancestors, they would probably have browsed on the wild grass of the llanos or plains. Ah! there are a great many such bobs hanging at the tail of some ancestral kite, even in this great city, my dear, learned friend."

"True, doctor, you are right, there."

"Well, sir, the vanilla is gathered from the wild vines in the woods. Off goes the hidalgo, proud of his noble ancestry, and toils home under a back-load of the refuse beans from the trees, after the red monkey has had his pick of the best. A few reals pay him for the day's work, and then, hey for the cock-pit! There, Signor Olfogie meets the Marquis de Shinplaster, or the Padre Corcorochi, and of course gets whistled out of his earnings with the first click of the gaffs, Then back he goes to his miserable hammock, and so ends his year's labor. That, sir, is the history of the flavoring, and you will have to allow a stretch across the Caribbean, say twenty-five hundred miles, for the vanilla."

"We are getting pretty well round, doctor."

"Then we have sauce here, wine-sauce—Teneriffe, I should say, by the flavor.

> '———from beneath the cliff
> Of sunny-sided Teneriffe,
> And ripened in the blink
> Of India's sun.'

We must take four thousand miles at least for the wine, my learned friend, and say nothing of the rest of the sauce."

"Except the nutmeg, doctor."

"Thank you, my dear young friend; thank you. The nutmeg! To the Spice Islands in the Indian Ocean we are indebted for our nutmegs. Our old original Knickerbockers, the web-footed Dutchmen, have the monopoly of this trade. Every nutmeg has paid toll at the Hague before it yields its aroma to our graters. The Spice Islands! The almost fabulous Moluccas, where neither corn nor rice will grow; where the only quadrupeds they have are the odorous goats that breathe the fragrant air, and the musky crockodiles that bathe in the high-seasoned waters. The Moluccas,

> '———the isles
> Of Ternate and Tidore, whence merchants bring
> Their spicy drugs.'

There, sir! Milton, sir. From Ternate and Tidore, and the rest of that mavellous cluster of islands, we get our nutmegs, our mace, and our cloves. Add twelve thousand miles at least to the circumference of the pudding for the nutmeg."

"This is getting to be a pretty large pudding, doctor."

"Yes, sir. We have travelled already twenty-five thousand five hundred miles around it, and now let us re-circumnavigate and come back by the way of Mexico, so that we can get a silver spoon, and penetrate into the interior."—*The Wine Press.*

CEMENTED CELLARS.

Frequent inquiries are made on this subject. Cellars plastered at the sides and on the bottom with hydraulic cement will keep out the water without a drain, and will exclude rats, provided the work has been done in the best manner. Imperfectly executed, the water will leak in: and if the coat is too thin or too soft, rats will excavate beneath it, and then crack it off by piecemeal. It is unnecessary to inform our readers that the very best material is to be used; but some are not enough aware of the importance of giving it sufficient thickness. On dry and hard gravel, it may do well to apply the mortar at once to the excavated face of earth; but usually it is much better to cover the cellar bottom with paving stones, and where rather inclined to dampness, with two or three successive layers, the last of which may be quite small, or even coarse gravel will do. The mortar, made rather thin, is then spread smoothly over. In a few months the whole will assume a flinty hardness, through which no rat, with all the cunning of a politician, can ever make his way. It will be as dry as a floor, and fruit, vegetables, and other articles, may be placed directly upon it without fear of dampness. It will not very soon wear out nor decay.—*Gennesee Farmer.*

MEZQUITE GUM.

The recent important discovery of a substitute for gum arabic, made known through a letter of Dr. Geo. G. Shumard to Thos. S. Drew, Esq., Indian Agent at Fort Smith, Arkansas, by him transmitted to the Bureau at Washington, D. C., and since published in most of the newspapers through the Union, is receiving much attention from naturalists and chemists. We have obtained from a gentleman who has investigated the subject, some facts which may be of interest to our readers.

Kunth notices a *Prosopis Dulcis* which resembles in appearance the tree spoken of by Dr. S., and remarks that it "yields a gum, Mezquitina, which is used instead of gum arabic," and many have erroneously supposed the two to be identical. The botanical name of the commonly known Mezquite tree, is given by Prof. Simeon T. Baird, of the Smithsonian Institute, as *Algarabia Glandulosae.* Dr. Shumard states that it luxuriates only in dry and elevated regions, but all other accounts, including that in the report of Captain Marcy, state that its home is in the "river bottoms," and its presence is generally considered as evidence of a rich soil. Capt. M. states that it is seen standing at such intervals as to present much the appearance of an immense peach orchard. They are from five to ten inches in diameter, and their stocks about ten feet in length. It is found on the river Gila, and plentifully on the Colorado. The banks of the Rio Grande produce some, as indeed do most of the rivers of the northern part of Texas. It is said to exist in forests of miles in extent, in Northern California. Like many of the plants of that latitude, its fruit is seen in blossom and in maturity at the same period. It is first recognized by the Pacific-bound emigrant in a stinted shrub, but as he approaches his destination, is seen only in a tree of twenty or thirty feet in height.

Our informant says that the gum is not the only valuable acquisition brought to light; it seems that mules devour with avidity the fruit, which is contained in a pod of a twisted appearance, being a berry of the size of a bean, each covered with a mealy pulp. Lieut. A. W. Whipple, of U. S. Corps Topographical Engineers, observing its peculiar effect upon them, was induced to examine it, and found that each berry possessed an intense stringent property. It is now thought, owing to the scarcity and high price of nutgalls, that tannin may be got from it with profit. Catechu, an astringent gum long used in medicine and the arts, we believe, is extracted from the wood of one of the *Mimosas,* and from present evidence we think will be obtained from the Mezquite. The Indians and Mexicans are in the habit of boiling its chips in water, and with the decoction dyeing articles of apparel, &c.

The tree certainly belongs to the class *Mimosa,* as does the acacia tree from which gum arabic is obtained, and from the similar properties, not only of the gum but the wood and bark, we may practically regard the two as alike. The gum may be procured during the month of August in large quantities, and brought to market with trivial expenses, bidding fair not only to lessen our importations of gum arabic, but in a few years to enable us to export with advantage. The only specimens of Mezquite gum which are known to be in the country were collected by the government exploring party under Capt. R. B. Marcy, 5th Infantry, U. S. A., a member of which was Dr. Shumard, who claims the discovery. We have seen the specimen at the store of Orlando Tompkins, corner of Winter street, (who has in his possession copies of the official correspondence in regard to it.) The Mezquite gum so closely resembles gum arabic in taste, appearance, &c., that from these proofs of identity alone we should at once have pronounced it a valuable product of our teeming country. It is expected that the government party under Capt. Pope, who have just left St. Louis on a journey over the plains mail route, for the purpose of sinking a line of artesian wells, will bring home ample specimens from the two or three varieties of the tree which are known to exist in that region.—*Boston Journal.*

THE VALUE OF ROOT CROPS.

The reader will be interested and benefited by perusing the article with the above title, from the *Plough, Loom, and Anvil.* The articles we copy from this journal are well considered and carefully prepared, and may be relied on to be as accurate as they can be without the expense of systematic tests and experiments.

It is reported as a remark of Mr. Webster, that if the turnip crop of England were to fail for two years in succession, that country would be ruined. This, of course, is a figurative speech, but there is much truth in it. A chemical analysis of turnips, however, would lead us to draw inferences the reverse of this. A root or fruit of which water forms 90 to 95 parts in every 100, can scarcely be thought very nutritive; and if the doctrine so very current, and which we have urged, that food containing nitrogen can alone be made useful to produce muscle, is true, then turnips cannot rank very high among such kinds of food. But we are beginning to inquire, at least, whether the great quantities of nitrogen in the atmosphere were not made for some other reason than because the Great Architect of all made oxygen rather too strong for common purposes. While so much oxygen is consumed by all forms of life, what service does the nitrogen perform? "It feeds plants." True, and *may it not* also feed animals? If not, why not? We do not attach so much force to the logic used on this subject as we have done, and facts and experiments certainly compel us to no such result. Potatoes yield but very little nitrogen, about 1½ parts in 100. Whence, then, comes the constant supply of muscle for the poor Irishmen in their native hovels? A very large proportion of the food of thousands of them, and almost the whole of many, consists of the potato only. Do they grow thin and weak? Neither. The carbon of the potato forbids the former, but what furnishes the muscle and imparts strength? Either we eat a wonderful excess of this muscle-forming food, or there is some mistake in our logic on these matters. But look, again, at the Esquimaux.

Whence come the muscle of that race of oil-feeders? Who labors harder than the ox, who feeds, often exclusively, on grass? The horses of hundreds of farmers, and especially those of twenty or thirty years ago, were kept without any allowance of grains. Whence comes the daily supply of nitrogen in the milk of the cow? She is fed, in many districts, with the same kind of feed.

Do you reply that all these substances contain nitrogen? We admit it. But we also claim that more nitrogen is voided in the excrements of these animals than is furnished in these kinds of feed. By Leibig's analysis, 100 parts of dry hay give 1.5 nitrogen, while by Bousingault, dried cow-dung gives 2.3 nitrogen. But this is aside from our main object. We recur to the subject of roots.

Turnips are found to be of great benefit to cattle, and why? We are inclined to explain it on the principle that concentrated nutriment is not so wholesome as that which is more diluted. The more diluted our food, provided we do not overtask the energies of the intestinal canal, in the conveyance of it to its destination, the better for the health of the animal. May not this be the rule? In such cases, the absorbents have more time and a better opportunity to possess themselves of what they need, without suffering anything to escape them. We do not assert this. We only suggest where no one appears ready to establish anything. The fact is universally admitted, that concentrated nutriment does not, of itself, form healthy food as an exclusive diet.

Again, the *ingredients* of turnips, etc., may be very favorably proportioned and combined to produce a physical effect peculiarly favorable upon the membranes with which they come in contact, and thus tend to secure a healthy condition in them. Is there any more satisfactory explanation of *the how* so vapid an article as a turnip is proved to be, should be so efficient?

But all roots usually cultivated, and all fruits resembling them, are peculiarly desirable as a feed for cattle. Beets, carrots, pumpkins, etc., have proved of great value for such purposes. Indeed, we can hardly doubt that the green stalks of corn, when fed to animals, pay better than the grain. Scores have given the result of their experiments, and among them all there is a marked agreement. The exceptions are few, if any. And it is obvious that in the green stalk the elements are in a condition more resembling roots, than is the grain, which is a more concentrated form of feed.

The following, according to Boussingault, are the constituent elements of sundry crops:

	Carbon.	Oxygen.	Hydrogen.	Nitrogen.	Inorganic matter.
Dry Turnip	429	423	55	17	76
Dry Beet	428	434	58	17	63
Clover	474	378	50	21	77
Oats, (the grain)	503	372	63	22	40
Wheat "	461	434	58	23	24
Rye "	463	442	54	17	24
Potato, dry	440	447	58	15	40

In these results there is a very great uniformity. But there is another matter to be taken into account. In the composition of 1000 parts of

Wheat, (the grain	117	are water.
Barley	150	"
Oats	100	"
Rye	100	"
Maize	130	"
Rice	140	"
Turnips	800	"
Red Mangel-Wurzel,	901	"
White Sugar-Beet	869	"
Parsnip	793	"

In the proportion of water there is a marked difference between roots and grains. How important this may be, what differences result from the combination of water in the root and water taken from the brook, we are unable to state. But it is not natural to suppose that the solid parts of the root, being to a greater or less degree in a state of solution or semi-solution, the food is in a better condition to be acted upon by the fluids of the stomach, and with more facility converted into chyle? And does not this tend to show the propriety of soaking grains, so far as it may be done conveniently, before feeding them?

Of the fact that soaking grains, and especially corn, for horses before feeding them, improves them, our own experience convinced us years ago. Whoever adopts this course will find fewer grains among the excrements of the stable, unchanged, than when the corn is fed in a dry state.

As to the comparative value of crops of grains and of roots, we offer the following as a fair approximation. Precision is, of course, impossible, where the conditions are so variable. The value of land, of labor, of manure and of crops, is too various for the predication of anything very definite. Various reports in the Hampden County (Mass.) Agricultural Society, bring the following as the cost of certain crops per bushel:

Wheat	58 5-6	cents.
Corn	54 2-10	"
Rye	48	"
Carrots	13 2-10	"
Turnips	4 2-3	"

Making an estimate from various other reports of the Massachusetts Societies, (though at a lower rate than the premium crops,) and from other sources in our possession, we come to the following results, the quantity of land taken being one acre:

Carrots.—Produce, 600 to 700 bushels of 50 lbs. each, worth ½ a cent a pound, or $150 to $175. Cost of cultivation, say $75. Profits, say $75 to $100 per acre.

Sugar Beets.—Produce, 320 bushels of 50 lbs. each, at 18 cents a bushel, its value is $57.60. Cost of crop, say $35. Profits, $22.60.

Ruta-Bagas.—Produce, 800 bushels of 50 lbs. each, at 25 cents a bushel, is $200. Cost, $100. Profit, say $100.

Turnips, (common.)—Produce, 600 bushels, at 12½ cents a bushel, is $75. Cost of crop, $40. Profits, $35.

Wheat.—Assuming 30 bushels as a fair crop, at $1.25 a bushel, the produce will be $37.50. Cost, $20; profit, $17.50. Or, by Hampden county estimate, the profit will be, say $17.65.

Corn.—Produce, 75 bushels, at $1, is $75. Cost of crop, $30. Profit, $45.

Reducing these results to a tabular form, we find the profits of an acre of

Carrots, say	$75 00
Sugar-Beets	22 60
Ruta-Bagas	100 00
Turnips	30 00
Wheat	17 50
Corn	45 00

We do not pretend to accuracy. The cost of crops varies fifty per cent. in different sections of country. Labor has no fixed price. The value of land and the interest on land, is as unsettled as anything can be; and the value of crops of all kinds depends upon the state of the markets, and the facility for transporting the crop to the market. Still we have made out a rough model, which every one disposed to do so can correct, as the almanacs say, for his own latitude. We doubt not that he will find one thing true, to wit: that root crops are among the most valuable of all the products of the farm.

It does not follow, we would add, ere we close, that roots are not excellent feed, even though they are of less profit as a crop for market. It is worth while to produce many things for our own use, which would not pay if carried off from the farm.

WONDERS OF THE SHORE.

[Under this title, there is an admirable paper in the last number of the *North British Review*. We extract a paragraph in which is given a graphic description of a singular worm:]

At all events, whether we are intruding or not, in turning this stone, we must pay a fine for having done so; for there lies an animal as foul and monstrous to the eye as "hydra, gorgon, or chimæra dire," and yet so wondrously fitted to its work, that we must needs endure, for our own instruction, to handle and to look at it. Its name we know not, (though it lurks here under every stone,) and should be glad to know. It seems some very "low" Ascarid or Planarian worm. You see it? That black, shiny, knotted lump among the gravel, small enough to be taken up in a desert-spoon. Look now, as it is raised, and its coils drawn out. Three feet—six—nine, at least: with a capability of seemingly endless expansion; a slimy tape of living caoutchouc, some eighth of an inch in diameter, a dark, chocolate black, with paler longitudinal lines. Is it alive? It hangs helpless and motionless, a mere velvet string across the hand. Ask the neighboring Annelids and the fry of the rock fishes, or put it into a vase at home, and see. It lies motionless, trailing itself among the gravel; you cannot tell where it begins or ends; it may be a dead strip of sea-weed, *Himanthalia lovea* perhaps, or *Chorda filum;* or even a tarred string. So thinks the little fish who plays over and over it, till he touches at last what is too surely a head. In an instant a bell-shaped sucker mouth has fastened to his side. In another instant, from one lip, a concave double proboscis, just like a tapir's (another instance of the repetition of forms,) has clasped him like a finger; and now begins the struggle—but in vain. He is being "played" with such a fishing-line as the skill of a Wilson or a Stoddart never could invent; a living line, with elasticity beyond that of the most delicate fly rod, which follows every lunge, shortening and lengthening, slipping and twining round every piece of gravel and stem of sea-weed, with a tiring drag, such as no Highland wrist or step could ever bring to bear on salmon or on trout. The victim is tired now; and slowly, and yet dexterously, his blind assailant is feeling and shifting along his side, till he reaches one end of him; and then the black lips expand, and slowly and surely the curved finger begins packing him endforemost down into the gullet, where he sinks, inch by inch, till the swelling which marks his place is lost among the coils, and he is probably macerated to a pulp long before he has reached the opposite extremity of his cave of doom. Once safe down, the black murderer slowly contracts again into a knotted heap, and lies like a boa with a stag inside him, motionless and blest.

WEEDS IN WALKS.

The following modes for preventing the growth of weeds in gravel walks, are copied from the correspondence of the *London Gardener's Chronicle*, and may prove valuable to some of our readers—at the proper season:

In order to prevent weeds from growing on walks, put a layer of gas-lime under the last inch of gravel. This also helps to bind the gravel.

The following is the way in which I managed walks when I was a gentleman's gardener. In one situation I held I had three miles of gravel walks to keep in order. In winter, when there was sufficient frost to freeze the gravel in the mornings, I employed the laborers in cleaning the walks with a half worn out birch broom, sweeping backwards and forwards, and then removing with a new broom what the old ones took off the surface. When the walks were covered with moss it was scraped off with a hoe before the broom was used. After having pursued this practice for 6 years, my walks looked as fresh and clean as if they had been newly graveled. Last season very few weeds made their appearance during the summer; by performing the operation when frost is on the ground, you not only remove all small weeds, but you sweep off most of the seeds deposited there to vegetate the following summer. If docks, thistles, or dandelions appear, cut out their crowns and put a little salt on them; you will not have to repeat the salting twice in one place.

IMPURE AIR IN WELLS.

Eds. Rural,—Having often read accounts of deaths of persons entering wells containing impure air, and having occasion to dig one the past summer, I took the precaution before any one entered the well, to try a lighted candle. I found on the last morning of digging, the depth being about thirty feet, that the candle would not burn lower than ten feet. For the purpose of expelling the gas, which had accumulated during the night, I first went to drawing the tub, which I used for drawing up dirt, up and down the well as fast as possible, but found no benefit from so doing. I then went to throwing water down, but with like result. I had about given up the idea of doing any thing more at my well at present, when the thought struck me that I would try the experiment of letting down fire, never having heard of such a remedy. I accordingly procured a kettle and filled it with light materials, such as chips and shavings, hooked it on to the rope, and let it slowly down. After remaining a few minutes I drew it up, tried my candle, and found it to burn as bright as on the surface, the foul air being completely eradicated, so that the well could be worked in perfect safety. Whether this remedy has ever been tried by any one else I do not know. If such remedy would have the desired effect in all cases when tried, it certainly would be valuable information to those digging or cleaning wells.—*Rural New-Yorker.*

For the New England Farmer.

MONTHLY FARMER FOR JANUARY.

In reading the extracts of agricultural addresses, on page 51 of this number, I noticed particularly the following sentence from Mr. Fay's Essex County address:—"*He who delves and digs the earth from morning until night, has little time and less inclination for thought.*" This is very different from the usual style of such addresses. The advantages which the farmer enjoys for study and reflection, and his opportunities for profiting by the changes of the seasons and the successive beauties which the rolling year presents for his admiration and improvement, are generally dwelt upon by agricultural orators in poetic ecstacies, that are but poorly realized by him who sits down in a warm room to study, after a day spent in the woods with the thermometer pointing at zero, or by him who attempts to admire the glories of sunrise, after mowing long enough to be thinking of breakfast, or of his feet and legs that are "sopping wet" with the chill dews of a summer's morning. But if it is a fact, which I think few who have tried it with their own hands will deny, that farming affords "little time and less inclination for thought" and intellectual cultivation generally, what is the natural inference? Because we have but a single opportunity, shall that be buried in the earth? Because we have *little* time for thought, shall we give up thinking entirely and rely on our priest, our doctor, and our lawyer to do it all for us? By no means. The very fact that we have small means implies the need of great efforts. When we are most alarmed by apprehensions of a scarcity of hay in the fall, spring often finds us with enough and to spare. We saw that we had but little, and looking the fact boldly in the face, by our care and economy, that little became an abundance! To know our disease, then, is half its cure. And if hard labor does tend to make us mere "toil-worn machines at last," the sooner we realize the danger, the more immediately shall we seek to improve the little time and inclination for thought that we do enjoy. But how improve? There might be much said on this question, but I will say but little here. As a first thought, however, we would advise to read some agricultural periodical regularly. I say *periodical*, because books do not seem to meet the case. A book may be laid aside and forgotten; but a periodical that comes to us monthly or weekly, makes a fresh claim upon our attention, just so often at least. No farmer has a right to do less than this for his mind, if he would not become a drudge, a toil-worn machine, and finally in old age, a dotard, whose intellectual imbecility and weakness shall be more pitiable than the ravings of insanity, or the struggles of death itself. If he who puts an end to his physical existence is guilty of murder, can the mental suicide be regarded as innocent? A habit of reading and thinking, as well as the obligation to provide for our households, is a duty we owe to ourselves and to our Creator, which may not be neglected with impunity. Let us then begin the year with the determination, that, although "he who delves and digs the earth from morning until night, has little time and less inclination for thought," yet that little shall be faithfully and carefully improved. Reading matter is now cheap, and that which is appropriate to our business is rapidly improving in character and value. The monthly *Farmer*, with its forty-eight broad pages, enters upon the new year with a variety of contents that must stir up thought in the mind of every careful reader. We offer a few of our own thoughts on some of its articles.

"*The Concord Grape.*"—The remarks of Mr. Wilcox express a feeling that I find prevails to a great extent among farmers in the country, and am therefore glad to see them treated so respectfully in the *Farmer*, both by the editor and by the proprietor of the grape. Whether the remarks of Mr. W. are just, or illiberal, in this case, is of little importance in comparison with the influence of the impression, that "the Press which tolerates such speculations, does no good service to the community." For my own part, I see no objection to a man's selling grape vines for five dollars a-piece so long as there are plenty of buyers at that price. After the fever is over, and the five-dollar purchasers are all supplied, the price will probably come down; and then, if the good qualities of this grape don't come down too, friend Wilcox and I may perhaps have a vine of our own to sit under. But in the mean time, it may turn out a "multicaulis," or a "rohan," or it may prove a "Baldwin," or a "Bartlett,"—the five-dollar men will decide this at their expense, but for our benefit. Why should we grumble.

"*Ruminating Animals.*"—Some popular notions about chewing the cud denied.

"*Witch Grass.*"—One article informs how to destroy this pest by cultivation, but with little hoeing; and another article recommends summer-fallowing.

Articles on "Sheep and Wool," on "Canker Worms," on "A Two-Acre Farm," "Gale's Straw Cutter," "A Journey" to New Jersey, Pennsylvania, &c., "London Vegetable Markets," "Agriculture in North Carolina," "Changes of Food," "Prepare for Winter," are but specimens of those on which we have no comments to offer.

"*French Garden Implements,*" &c.—In France, it seems that farm labor is poorly paid, yet such are the habits of the people, that a man and his wife, boarded and lodged by their employer, laid by $100 of the $180, which were paid for the labor of both for a year. If our expenses increase faster than our income does, it will take a long time to get rich, and large wages do little good.

"*Talk about Guano.*"—And a very interesting chat it is. The remark which was ascribed to the editor, but which it appears he never made, that guano in Massachusetts had done more hurt than good, is one which I really believe would express the result, so far as I have personally observed its effects, in my own neighborhood. If merely a few preliminary experiments, which leave the editor of the *Farmer* with "no means of judging" whether the losses or the benefits are the greater, cost our country ten millions of dollars, where will farmers get the money to pay for the amount that will be required when the vote of Rockingham County shall decide that guano may " be used to advantage by our farmers in New England."

"*How long it takes to get Apples.*"—Just two years, according to this article; which, to me, has something of the *ring* of " Book-farming." Five years ago, next spring, I set out something over one hundred apple trees. I did not suppose my trees or my soil were good-for-nothing, and I have tried to give the trees a chance to grow, but I have seen only a few apples as yet,—probably not over forty or fifty in all. Part of my trees were large; a part small. The smallest have done the best; indeed the largest tree in the orchard now, was one of the smallest when planted.

"*A Home in the Country.*"—How to buy a farm worth four or five thousand dollars, and to secure to your family the income of five thousand dollars beside, with a capital of only $2,200, (two thousand two hundred dollars!) If the writer of this article had been President of the United States Bank, I think he would not have cared a snap for the removal of the deposits.

"*On Beautifying the Farm.*"—An exhortation by the editor, to plant trees so as to produce something of the tasteful and beautiful around our homes; in connection with which we might allude to the " enthusiasm " which the little groves and shade trees about Philadelphia inspired our usually calm and practical friend, Dr. Brown, of Wilmington. He thinks many farms in Massachusetts would realize in a few years from the increased value of their farms, at least ten dollars a day by planting trees now.

"*Cycle of Good and Bad Crops.*"—The design of this article is to show that there has been for many years a pretty regular succession of periods of four or five years of alternate good and bad crops, and that we have at this time just entered upon a series of poor crops. Rather discouraging.

"*Home-made Furniture.*"—Such articles are too scarce in agricultural papers. The very word, "home-made," has become antiquated. Not only is our clothing ready-made, but every implement, from the mowing machine to the hand-sled, must pass through the hands of mechanics. This is well enough, if we can afford it. But there is an old adage that says, " the gods help those who help themselves."

Barns.—We have descriptions of a twenty-thousand-dollar barn, in Great Barrington, Mass., and of a Concord barn, 125 feet by 54.

"*A Good Move,*" is what the *Country Gentleman* calls a proposition recently made in Congress for the establishment of a National Agricultural School. But if Uncle Sam should make as bad work in teaching the science of agriculture, as he did in estimating the value of "home manufactures" up in New Hampshire, as appears by Mr. French's article on "Other People's Business," he had much better leave that business with the schoolmasters that are already abroad.

"*Pruning Apple Trees.*"—As I am unsettled in opinion on this subject, I read everything relating to it, with interest. Forest trees get along comfortably without trimming, and so do shade trees generally. But, says Mr. Brown, "apple trees grow with a superabundance of limbs that provision may be made for casualties, and an opportunity afforded the cultivator to *train according to his particular* "*taste.*" Now that is very kind in Nature, certainly; but it would save me much doubt and hesitation if she had labelled these "superabundant limbs" respectively, as the case might be, "jackknife," "handsaw," "axe," &c. If Mr. Brown is disposed to be offended by these remarks he must give the editor half the blame, for attaching that article on page 38 to his recommendations on "Beautifying the Farm."

"*Fall Plowing.*"—On this subject we have three or four articles.

Illustrations.—Gale's Straw Cutter, the Hurlbut Apple, Bracketed Cottage, and improved Short Horn Bull.

Among the many articles which I have passed over, I must at least name "Turnips and Salt Hay," "Agricultural Implements," "Organic and Inorganic Matter," "Grain Crops," "Brief Practical Hints," "Winter Care of Cattle," &c. &c.

Winchester, Jan., 1855. A READER.

A FEAT IN CHEMISTRY.—During the recent lecture delivered by Professor B. Silliman. Jr., in New York, he solidified carbonic gas. This was effected by bringing sulphuric acid in contact with carbonate of soda, in a strong iron vessel, capable of resisting an expansive pressure of *thirty-four atmospheres*, or 510 pounds to an inch! Prof. S. stated that this experiment has been given up entirely in France, in consequence of the bursting of several iron vessels, by which several persons had been killed. But he stated that the iron vessel used on this occasion, had never been known to burst, and the experiment was considered not at all dangerous. As the liquid (it being in a liquid state in the vessel) was drawn off, a larger portion instantly evaporated, and by the evaporation reduced the remainder to the freezing point. In this way, several pounds of solid carbonic acid were obtained. It had the appearance of the whitest snow, and was so cold that by holding it only three seconds the hand would be frozen. He placed a portion of it around a long vessel containing mercury, and froze the mercury solid! The mercury was then taken out and hammered like lead.—*Albany Register.*

THE WAY TO BUILD UP A STATE.—Governor Grimes, of Iowa, in his inaugural address, thus describes the wants of the thriving State over which he presides :—

" She wants educated farmers and mechanics, engineers, architects, metallurgists and geologists. She needs men engaged in the practical duties of life, who have conquered their professions, and who are able to impart their knowledge to others. She wants farmers who shall be familiar with the principles of chemistry as applied to agriculture; architects and mechanics who will adorn her with edifices worthy of so fair a land; and engineers and geologists who will develop her resources, and thus augment the wealth and happiness of her citizens. This want can only be supplied by the establishment of a school of applied sciences. I have no hesitation, therefore, in recommending that a University fund be appropriated to establish a practical scientific or polytechnic school."

WIRE FENCES, MADE BY MACHINERY.

It might not occur to a casual observer, that the fences of the United States cost more than twenty times the amount of all our specie; nevertheless, such is the fact. There is no country on the dial of the globe, so well furnished with wood and stone—the common materials for fencing—as many portions of this; yet so great is the cost of fencing here, that it has become a burden, "grevious to be borne," on our national industry. Many of our States have little or no rock, from which to make stone walls; those formerly occupied by prairies have little wood from which to make rail fences; and our soil, climate and physical geography are such, that hedges or live fences are altogether impracticable. Solon Robinson, Esq., the able agricultural editor of the *New York Tribune*, says, that in all his travels, he has never seen but one good live fence in the United States; and that, he observes, was "protected on one side by a board fence, and on the other by a rail fence."

Indeed, the agricultural mind of the country has long been conscious that a total revolution must, sooner or later, supervene in our modes of fencing. *Iron fencing* has been suggested, and, doubtless, would have come into general use, but for the want of a method of making it by machinery. This great want has at length been supplied. JOHN NESMITH, Esq., a prominent man in the manufacturing interest in Lowell, has invented and patented a machine for the manufacture of *wire netting*, for fencing, trellis-work and other uses, considerable quantities of which have been made and sold by the Lowell Wire Fence Company.

This fence consists of a strong and beautiful netting, woven by the machine, varnished with asphaltum blacking, coated with cold tar, painted, or galvanized, rolled up in portable rolls, from thirty to sixty rods in length, and sold to consumers at from sixty cents to $1.50 per rod—the price varying according to the height of the fence, the size of the mesh, (or squares,) and the number of the wire. It can be readily set up by any ordinary farmer, and no rails are necessary, but the netting is fastened by wire or staples, to posts of wood, iron or stone, placed from eight to fifteen feet apart, and the edge of the netting is to be kept on a level from one terminus to another. When properly set, it is strong enough to "hold" an ox, and too *close* to be penetrated by a chicken. If varnished, painted or tarred once in five or six years, it is calculated to last a century or more. It offers so little resistence to wind and tide, that no gale can blow it down, or flood wash it away. If fastened to posts, set upon feet instead of being set in the ground, this fence may be laid flat on the land, or entirely removed on the approach of the flood-season in districts subject to floods, and set up again as good as ever, when the flood has subsided. It excludes none of the rays of the sun; it harbors no weeds, or vermin; it covers none of the soil, like hedges and walls; and the peculiar mode of its texture enables it to undergo without the slightest injury, that alternate expansion and contraction to which all metallic substances are subjected by the changes of temperature incident to the atmosphere. All who have examined or tried it, attest that it possesses in the highest degree, those seven cardinal qualities in a perfect fence or trellis-work—strength, closeness, beauty, lightness, portability, cheapness and durability.

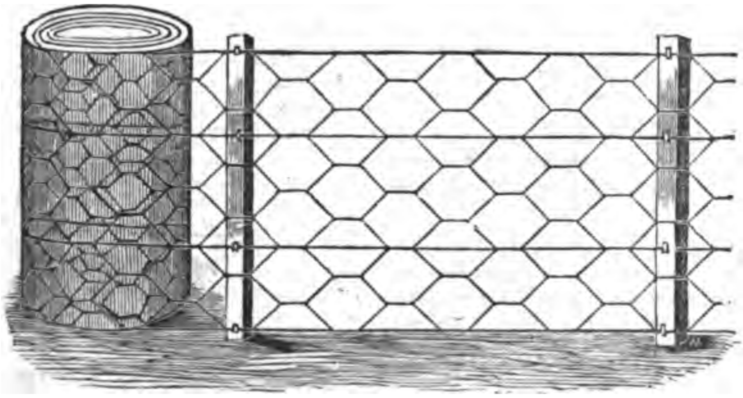

FIG. 1.

Many kinds of this netting are made, adapted to all uses, from cattle-fencing to window-netting All sizes of wire are used, from No. 10 to N [illegible].

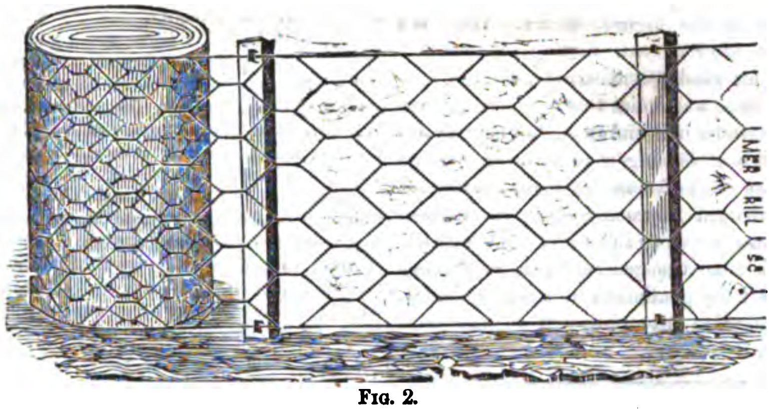

FIG. 2.

and any kind can be made, suited to fencing for cattle, sheep, swine, poultry, gardens, cemeteries, parks, roads, railroads, trellis-work, etc. We are happy to insert some cuts presenting a more vivid impression of the practicability of this fencing, than any words could convey.

Fig. 1. The fencing represented is four feet high; the mesh or squares six inches; the straight or lateral wires of No. 10 wire; the body of the fence of No. 12 wire; and sold at from 75 cents to $1,50 per rod.

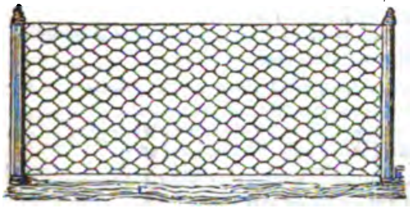

FIG. 3.

Fig. 2. This fencing is of the same height as the former, with wire and mesh of the same size, but without the lateral wires running through the body of the fence. Price 60 to 95 cents per rod. Both these make first-rate farm fences.

Fig. 3 represents another kind of this fencing, from sixteen inches to four feet high, with mesh of three inches. The body of this fencing is of No. 15 wire; the price from 75 cents to $1,50 per rod. This fence, in its several varieties, makes an admirable sheep, poultry and garden fence; that four feet high serves for heneries. Among those who have tried this mode of fence, is Richard S. Fay, Esq., the popular agricultural lecturer, who writes of it as follows:—

“*Boston, Jan.* 5, 1855.

CHARLES COWLEY, Esq., Agent of the Lowell Wire Fence Co.

“SIR:—Your favor of Jan. 2d is duly received. I have used the Lowell Wire Fence during the past summer, for folding sheep at night on land that I wished to manure, shifting once or more every week, and have found it answer the purpose perfectly. I have also enclosed an acre or two of ground with it for the purpose of keeping a few sheep separate from the flock. If properly set, it would hold any thing, and for smaller animals, particularly sheep, it is impossible that they should break it down or escape from it. I have had some iron rods made with a double foot, which I drive into the ground and attach the fence to it either by copper wire or stout twine. A man and a boy will inclose a quarter of an acre in less than an hour, having these posts, which should be set not more than a rod apart.

When I change the fence to a new spot, I unfasten it from the posts—throw it down—begin at one end, and roll it up as you would a carpet. And so in re-setting, reverse the process, rolling it out where it is to be set; drive down the posts, and then raise it and attach it to them. My fence cost $1,50 per rod, and it is a cheap mode of handling or inclosing at that price. I understand now that it is made much cheaper.

I am very truly yours, RICHARD S. FAY.”

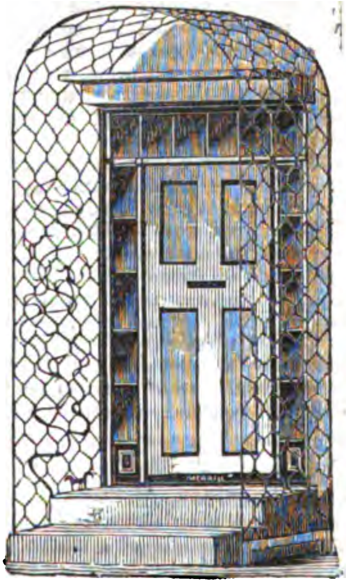

FIG. 4.

Fig, 4 represents the door of a house, arched with some of this netting as a trellis-work.—Nothing more elegant could possibly be devised than this, which is at once cheap, light, durable and tasteful in the highest degree. There is a still smaller kind of this netting, of one-inch mesh, used for window-netting, etc. etc.

On the whole, we admire this novel fence; and when we consider the unreasonable cost of our present modes of fencing—the growing scarcity of wood—the want of stone in many States, and the acknowledged impracticability of quick-set fences, we are forced to the belief that this will ultimately become the general mode of fencing. We trust that the gentleman, to whose genius we owe this valuable invention, will realise handsomely from its success.

PEACH-GROWING.

Having noticed some inquiries in the *Newspaper* concerning the growing of peach trees, and the manner of protecting them from the worm or grub, and having had some experience in the rearing of trees, and much success in their cultivation, I take the liberty of writing a few hints, which I hope your correspondent will test.

To insure the regular germinating of the seed, they must be placed in a tub or hole in the surface of the earth, exposed to the action of the frost, or freezing and thawing, which breaks the shell and gives them an equal start in the spring. Without this precaution, many of the seeds would not germinate at all, and others get the start and overrun and shade the rest, rendering the nursery uneven and irregular.

If your correspondent wishes to grow trees for market, he must select a rich, gravelly loam, plowing deep and in good order; the drills three feet apart, and the seed to be placed ten inches in the drill, to be done as early in the spring as the ground will permit. When the sprouts appear they must be carefully hoed, and, when six inches high, a common corn cultivator, with a steady horse, can be passed through, and thus the weeds and grass can be exterminated without much manual labor.

When the trees attain the proper size, they can be either grafted or budded with any variety. But the best plan is to grow from choice seed, not grown from a grafted or budded tree, as they will not produce the same variety of fruit.

The best situation for an orchard is on hilly or rolling land—north or south not material; but to insure large and well-flavored fruit, the land must be *rich and kept in a high state of cultivation*. Corn and wheat must be excluded, but the first and second years a hoed crop of potatoes or tobacco, followed by clover, which should be plowed in while green.

When the trees begin to bear plentifully, nothing should be allowed to grow in the orchard but the trees, carefully worked with the plow and cultivator. When trees are heavy bearers, and the fruit attains the size of a shell-bark, they ought to be thinned by hand, and all the smaller portion removed to make room for the more thrifty growth.

I have now come to the most difficult part of peach-growing, which is the grub or worm. It attacks the root of the tree near the surface, and, if not removed, will soon kill it. I have tried many experiments, and the best remedy I have found, is to lay bare the roots of the tree early in the spring, and, with a pointed instrument, (an old table-fork with but one prong is a good one,) to ferret out the enemy and kill him. Wherever the glue exudes you will find a nest of worms; kill them and scrape the roots with a knife, and apply a kettle of boiling water. The roots can be laid bare until after blooming, as that will retard the sap and bloom until the settled weather of spring; a pint of salt and a pint of lime should then be applied to the roots, and the dirt returned. It is an effectual remedy, which, I hope, your correspondent will test.—*Phil. Dollar Newspaper*.

THE GARDEN.

BY E. PORTER DYER.

A garden, a garden, O give me a garden,
With soil of a mellow dark mould,
Where my face may get tanned, and my fingers may harden;
I would not exchange it for gold.

This spading, and hoeing, and raking, and wheeling,
Preparing to scatter the seed in,
To my mind the goodness of Him is revealing
Who planted a garden in Eden.

The scent of fresh mould—'tis refreshing to smell of—
The toil it requires is reviving;
The sweat of the brow, though 'tis nothing to tell of,
It sweetens the gardener's living.

Our first father found it an exquisite pleasure
To practise the science of pruning,
Or walk with his Eve in the shade at his leisure,
For instance while "taking his nooning."

And whether he planted corn, beans, or tomatoes,
I find not a word or tradition,
But always supposed when he dug his potatoes,
He found them in healthy condition.

His strawberry plants must have looked quite delicious,
At least, while in process of bearing—
As berries and cream were regarded nutritious,
Of cream, his dear Eve was not sparing.

She always took pleasure in setting her table.
To study the taste of her Adam;
And he from his garden, whene'er he was able,
Found comfort in picking for madam.

And often I've thought had not garden employment
Been furnished in Eden for Adam;
His wife had been homesick, and all his enjoyment
Been making herb-tea for his madam.

A Good Cow.—One of my neighbors has an American Cow, five years old, which has given him milk enough to yield 1½ pounds of butter a day, from 1st of June to 1st of October, besides the milk and cream needed on the table for four persons—which cow he never thought of valuing more than $50.

The truth is, some folks have such a fancy for things *far fetched* and *dear bought*, that they will not use what springs up *near home* at any rate. How long will it be before *Yankees* will be persuaded that Yankee stock is as good as any other, when properly cared for. I know but little on these subjects—but this I do know, that it is easy to find Yankee cows good enough for any body. *Granite Farmer*.

HARD TIMES.

When the wealthy merchant is compelled to borrow money at two per cent. a month to meet his liabilities, he complains of hard times. When the manufacturer finds his expenses to exceed his profits, and receives no dividends, he complains of hard times. When stocks and lands are low in the markets, the lawyer and doctor, and all those who have laid away a surplus for a rainy day, imagine they know something of hard times. But none of these people, though they complain most bitterly, are the real sufferers, in such hard times as now exist in our cities. The merchant may fail in his business, and the manufacturer may stop his machinery—they may assign their estates for the benefit of their creditors, and take the benefit of the Insolvent act, but still they live in fine houses, their tables are abundantly provided, and their children well clothed and educated. They may suffer from disappointed ambition, but not from hunger, or cold, or nakedness. There *is* a class, however, whose idea of hard times is not limited by inability to pay their debts, or to educate their children, or to wear fashionable clothing. There are hundreds, nay thousands, who have been, until recently, in comfortable condition, receiving liberal compensation for their labor, who rise in the morning, not knowing when or how they shall find food for the day, for their little ones, —willing to labor, but unemployed—thousands who have been bred and educated with the idea, that to receive charity is a disgrace to an American, who yet see no way but through the almshouse to avoid actual starvation. Such is the condition of many thousands in New York, of some, even, in our favored city of Boston.

"The poor ye have always with you," is a text, which they who have more than a bare competency, should bear constantly in mind.

How our duty to the poor can best be performed, is a problem which has never, by statesmen and philosophers, been satisfactorily solved. Public charities, permanently established, by means of which food and clothing are systematically distributed, may undoubtedly tend to render the poor improvident, and to overcome the true pride of independence, while private individual charity seems wholly inadequate to meet the demands of humanity.

Again, while we have enough and to spare for all who are born on our own soil, we see sometimes, in a single day, tens of thousands landed at once in a single city, a great proportion houseless and friendless, to perish by starvation, or to excite your charity. Of the right of foreign governments thus to flood our country, with the poor, and often the criminal, there is probably little difference of opinion. But our duty, as men and as Christians, is limited to no country, and to no sect. Doubtless, charity should begin at home, with our family, and friends, and kindred, and townsmen, and countrymen, but it should end only wit our means and opportunity for doing good to our fellow-men. "The poor ye have always with you," and he whose heart is in the right place, will be puzzled with no nice questions of politics or ethics, how "to do them good," while he who loves his money better than his brother may find objections to every mode of relief suggested. "I know," says a modern writer, "how hard it is to see through a dollar, though misery stand behind it, if the dollar be your own, and the misery belong to your brother."

In this blessed land of plenty, it is enough for us to know that our fellow-men are hungry and naked, to make our duty plain to feed and clothe them. Let us make them comfortable first, and afterwards preach to them of the doctrines of religion, and the true relations of social life.

To the farmer, the present distress brings a lesson that cannot be too deeply read. While misery, naked and hungry, is scared from her midnight haunts, and walks at noonday in the market-place of our cities, maddened almost to rebellion against the law—while the mechanics in some of our cities are holding meetings in public places, avowing principles, which, if carried out, would lead to all the horrors of a Parisian mob—there is no lack of abundance with the farmer.

Overtrading, excess of importation, the failure of banks and railroads, have no terrors for him. Nature is his banker, and her discounts are not suspended, when his distress is the sorest. His small deposite of seed in her vaults, is returned with usury in abundant harvests. Is it not a fact, that the rural districts of New England are, at this time, in a condition of comfort and abundance, while everywhere else are heard cries of deep distress? This is no accidental circumstance. It is a legitimate result of agricultural life. Again and again, we have urged this view upon our readers, when our young men were rushing from the homes of their fathers, into the cities and towns, to swell the already crowded avenues of trade and manufactures.

Let us again repeat what has often been said already in our columns, that the life of the farmer who owns the land he tills, is the life most favorable to true independence and the highest virtue. Stick to the land, and invest your money, if you have any, in your farming business, remembering that the common prayer, "let me be quickly rich," is seldom answered, and if ever, oftenest to the hurt of him who utters it.—Comfort and education and peace may be universal, but wealth can, from the nature of things, be but occasional. With all that reasonable beings can ask, let our farmers be contented with their condition, and not envy the rich man his gold, for in the language of Izaak Walton, which we quote from memory, "The cares that be the keys that keep those riches, hang heavy at the rich man's girdle, and clog him with weary days and restless nights."

At the same time, let us be ever mindful to *help one another*.

For the New England Farmer.

DAIRY PRODUCTS.

Mr. Editor :—I have examined, with much interest, the returns on this subject from the Counties of Worcester and Middlesex. After what has been said of extraordinary "butter products," I did expect to find some such drawn out by the generous premiums offered by the State Society. The products from the towns of Worcester and Barre are quite fair for the season, (considering the all-pervading drought,) but they are not better than can be found on many farms where the pasturage is good. On the farm where the butter is made for my family, the cows for years have yielded an average product of *one pound* a day, for the entire butter-making season, and in the best part of it, nine or ten pounds per week, for each cow, on grass feed alone. *These cows are entirely native.* I do not see that Mr. Lincoln's *improved stock* has done any better than this. I sincerely regret that the "eminent farmer" of Middlesex, should not have rendered a full account of the product of his Devons for the season. Such an account would be much more satisfactory, than "October products" alone. It is with cows, as with persons—to rightly understand their character, they must be summered and wintered. You cannot begin to form a true idea of the value of a cow, from the product of one week, or one month,—it must be for the season entire, with ordinary fair feed. Any standard of judgment not based upon such a foundation is not to be relied on. I remember to have seen in the *Michigan Farmer* a few days since, a statement of four cows that yielded 174 lbs. of butter, and 1050 lbs. of cheese, in the space of 100 days, the present season. These were said to be native stock. According to my notions, this was doing quite well. A few years since, I remember the *Albany Cultivator* gave a statement of the dairy products on the farm of Mr. John Stone, Jr., of Marblehead, for which he obtained the first premium of the County Society. This stock consisted of four cows, all descended from one ill-looking, hornless animal, that was purchased from a Hampshire drove, about thirty years since. They were pastured on five acres of ground, and no more, with plenty of pure water from the adjoining hills. In the space of forty days they yielded 240 lbs. of butter, of first quality. These are products in the ordinary way. There may be Durhams, Jerseys, or Devons, that will do more and better than this—but when they will do it on the same kind of feed, and with the same attention, and no more, I think it will be safe to offer double price for such butter.

January 8, 1855. Essex.

For the New England Farmer.

PROFITS OF HENS.

Friend Brown :—I herewith send you the following statement of my last year's experience in the hen line. If you think any of our farmer friends could profit by my experiments, you can publish it. I send it to you for the benefit of that class of persons who say "hens are more plague than profit."

DEBTOR.

Jan. 1, 1854,	bought 8 hens and 1 cock—cost		$3 50
"	4 turkeys	"	3 00
March 8,	bought 8 hens	"	2 67
"	35 ducks' eggs	"	89
"	duck	"	50
Corn and meal during the year		"	20 64
Cost of fowls and keeping			$31 20

CREDIT.

69 chickens and turkeys sold		$31 44
115 dozen eggs sold and used		27 52
On hand Dec. 31, 14 hens and 1 cock	@.50	7 50
6 "	@ 37½	2 25
12 ducks	@50	6 00
		$74 71
Less cost		31 20
Net profit on this small lot of fowls		$43 51

These are facts, Mr. Editor. Why cannot our country friends, many of whom have ample room and far better accommodations, make three or four times this amount every year?

Yours truly, A. F. L.

Malden, Jan., 1855.

For the New England Farmer.

BASKET WILLOW.

Mr. Editor :—As the introduction of any new tree, shrub, vine or plant which can be cultivated with profit, improves the condition of the farmer, and adds wealth to the country, it is with much pleasure that I am able to submit to your readers the following facts in relation to the cultivation of the *European Basket Willow*.

Having, in the spring of 1853, obtained several hundreds of willow cuttings, I planted them out about the 20th of April, on land which had been previously prepared for a crop of potatoes. The character of the soil was a deep sandy loam. After planting out, which was very hastily done, they received no better attention than is usually given to a crop of corn or potatoes; they made a growth of from three to six feet in height, and in November they were cut up and the stumps allowed to remain unprotected through the winter. Last season they received neither manure or cultivation, but were allowed to grow in their own free, natural, yet graceful way. On cutting them up last November, I measured a rod, and on weighing found the product to be 112 lbs., or after the rate of 80 lbs. less than nine tons to the acre.

A very large portion of them grew from six to eight feet in height. Those which I left uncut have proved perfectly hardy, nor have I a doubt that they are perfectly adapted to this climate.

There is now a machine for peeling them at a trifling expense, and there is, in my opinion, no longer a doubt that it will prove one of the most profitable crops which the farmer can grow, nor can I see any reason why it will not make one of the best land fences of any material which has ever been introduced. I am resolved to give them a fair trial, and shall in due time, with your permission, report the result. Will not others do the same? **E. Hersey.**

Hingham, Mass., 1855.

Remarks.—This subject is one of much importance, and ought to receive more attention. We have not the statistics at hand to show what the amount is, but the sums are very large which are annually sent out of the country for willow. We more than suspect that the idea that willow cannot be raised with profit in this country, has been industriously circulated by interested parties. We hope to hear from our obliging correspondent on this subject again. We have specimens of his growth of willows now before us, very smooth and even, and about nine feet in length.

For the New England Farmer.

AN AGRICULTURAL GLIMPSE OF WASHINGTON CITY.

BY HENRY F. FRENCH.

My Dear Brown:—"This is a great country," as the orators all say, and one is not obliged to go out of it to see sights quite unfamiliar to many who read the *Farmer*.

A glance at so much of the agriculture of this region as may be seen on Pennsylvania Avenue, the great thoroughfare between the Capitol and the Presidential mansion, would illustrate a favorite idea of your own that "there are different fashions in different places," in a manner that would amuse a Massachusetts or New Hampshire farmer. I have just taken a walk through the city, and on my way passed through the market, which is more crowded than usual on account of approaching Christmas, which is regarded, with the remaining days of the month and New Year's day, as a festival season, not only by members of Congress, but by the miscellaneous crowd, of all colors, who inhabit this great city. And let me say, in passing, if we New England people would set apart more time for social amusement, instead of devoting it all to working and sleeping, we should find it for our advantage.

Let me try my daguerreotype upon a few objects presented by the great avenue on a market morning. There comes a load of hay, drawn by an ox-team. There are four animals, called oxen; two of them are of a grizzly white, without horns, and the others of dark colors, with long horns. They all look of different ages, ranging from three to ten, and, from some principle of taste that prevails here in such matters, each yoke is made up of a white and a dark-colored ox, a horned and a hornless one. They are all small, and poor as skeletons. The yokes are nearly straight, about such as you could hew out of a four inch joist with a broad axe, and look as if they would answer just as well either side up. The bows are small sticks, with the bark on, and one end of each is nearly a foot longer than the other, with the slanting cut of the axe on each, showing that the length is just as the stick was originally cut. A rope is attached to the horn of the near ox of the forward yoke, wherewith to pull them round, so that the team need not indulge their constant propensity to run away from the driver, when they ought to *haw*. The cart has small, narrow wheels, with two sticks of round timber for sills, and two sets of hoops on each side, bent into the form of half circles, and the ends thrust into the sills, to form the sides of the cart.

The load consists of not more than half a ton of hay, on the top of which sits "a gentleman from Africa," with a pole about twelve or fifteen feet long, with the bark on, and a line of no particular length on the end of it for a lash. This is the driver, and he whips the oxen most of the time, while two other darkies, a small and a big one, seem to act as an advance guard, sometimes riding on the load, but, in case of emergency, running to the off side, to scare the team round, when a pull on the rope is not sufficient. Riding at a short distance behind, on horseback, is a white man, who probably owns the entire set of quadrupeds and bipeds above described, and who finds it necessary to be near enough to take the pay for the hay when sold. The hay is worth "a dollar and a *levy*" a hundred, or twenty-two and a half dollars a ton. And so this tasteful procession moves up the spacious street, amid gilded coaches with splendid horses, and servants in livery, while the paved walks on either side are crowded with "fair women and brave men," in rich attire of laces and furs and velvets, interspersed with negroes and occasional pigs, to correspond with the variety of the carriage ways.

There is a load of wood, of about half a cord, on a wagon drawn by two mules and two horses—not a pair of mules and a pair of horses, but a mule and a horse in each *span*. The pole of the wagon is very long and nearly touches the pavement, while the forward animals are so far off of the hinder ones, that they hardly appear to belong to the same establishment. Upon the near wheel beast, on an old saddle, rides the driver, with a short cart whip. He is a negro or mulatto, and keeps up a continual discourse with his cattle, which they understand better than I.

The collars, like most of those used for mere labor, are of braided straw, and the hames of wood. The reins of most of the horses about the market are of hempen cord. Indeed, the whole fitting out of a negro servant for market—man, beast, cart and harness, is of the poorest that will hold together. Nothing that I ever saw in New Hampshire, except the Gipsey basket-makers, deserves to be exhibited in the same museum, or anywhere else, on the same day. But this is only a partial view. Look again, and you may see as splendid a team of draft horses as Boston affords, with a huge block of marble on a low car. The animals are fat and well groomed, large, and fitted with fine harnesses, and every thing indicates thrift and energy. That is a team owned by a contractor upon the public works, or perhaps one of Uncle Sam's own teams, which, like everybody else fed at the public crib, are in good condition.

Roaming about the broad streets, shivering in the cold and mist, are numerous poor, pitiful objects, in the shape somewhat of cows. They are not so poor, now, as they will be next spring; but to us, who live where cattle are not suffered to go at large, and where the idea prevails that milk cannot be manufactured even by a cow out of a north-east wind alone, to us they present a hopeless picture. Most of them have no horns, and this fact seems to render them still more objects of compassion. The cattle here are a mixture of the short-horn Durham, and the Buffalo or hornless breed. They are of fair size, and if well fed, would doubtless prove good milkers. There are no enclosed pastures about this city, but the cows, in summer, run upon the extensive commons, and in winter are about half fed at home, and then turned loose to find what they can in the streets. Various plans are devised to induce them to return home at night. Starvation compels them to it in winter, and in summer the calf is kept, a great part of the season, as additional security. As a consequence of this mode of *taking care* of the cows, milk is sold for eight or ten cents a quart, wine measure, and butter for from thirty-one to forty cents a pound.

As to swine, they are in the streets, upon the sidewalks, and everywhere else. What the Irishman said of Cincinnati might be said with equal truth of Washington, that every third man one meets is a hog!

But enough for this time. After I have taken another walk through the market, I shall, perhaps, give your readers a pen and ink sketch of such features of it as are not familiar to the eyes of Northern farmers.

Truly yours, H. F. F.

Washington, D. C., Dec. 27, 1855.

Swamp Muck.—There are some localities where muck of good quality is found that cannot be reached by wheeling. It can be done by sledding, and now is the time to get it out. Sledded out in this and the next month, and strewed around the stable yard or thrown into the pig-stye, it will be a most valuable compost by the time manure is wanted, in the spring. It will be valuable as a manure, if only hauled out and spread in shallow piles to be operated upon by the frosts of winter. It is better to place it in the yard or stye. It is altogether preferable, however, to let muck hauled out so late, remain over the following season, being occasionally hoed or shovelled over in the yard. It thus becomes thoroughly worked over and saturated and mixed with the droppings of the yard. However, it matters not so much where you put it, or how long you keep it, as that you *get the muck out.*—*Granite Farmer.*

SENSITIVENESS OF BIRDS.

A Buffalo paper relates the following anecdote:—

"A friend of ours has had for a long time a very superior canary bird, which has been celebrated for its excellence as a songster, and for which he has been offered large sums of money. About three weeks ago our friend being awakened from a "nap" by its voice, rose and hastily exclaimed, "D—n that bird." The bird, then at the height of its song, suddenly ceased its note, and, from that time to the present, has never warbled or even chirped, but has maintained an unbroken silence. What philosophy of instinct or of mutual affection between man and his pets account for this?"

We have heard instances of a similar character, and therefore are inclined to place full faith in the above, extraordinary as it seems. A gentleman devoted to the study of natural history, and whose practical acquaintance with birds is very great, once told us the following of a pet of his. He said he was given one time to the folly of flying into a furious fit of passion upon any small provocation, and that the effect of this manifestation of bad temper upon the bird was very singular, seeming to produce in it a somewhat similar disposition. Whether his anger were manifested toward the bird, or toward some one else in the room, no sooner would his eyes begin to kindle, than his bird would made a sudden dart at them. Upon several occasions he came very near losing the sight of one of his eyes, in consequence. And he became therefore exceedingly cautious how he gave way to fits of anger in the presençe of his little pet. To this circumstance, he attributed, we know not how truly, a very great improvement in his power of self-government.

The same gentleman also informed us, that his wife had chosen one among his birds as an especial favorite; and had cherished it so much that the little creature seemed to be positively unhappy when she was not present. It was thought best therefore to try to wean the bird a little from her, and she was desired to take no notice of it for a time. His wife did as requested, and the next morning, when she entered the room where the birds were, repulsed the little creature as it flew towards her; and when it flew back again to its perch, began to fondle another. A few minutes elapsed, and hearing a slight noise, she turned again towards her former pet—the discarded favorite had fallen to the floor, dead.

Other anecdotes of a similar character have been related to us, going to prove the extreme sensitiveness of these little beings. In some cases manifesting their sense of neglect on the part of their owners by grief, as in the above instance, and at other times by exhibitions of anger, and even of revenge.

While we are upon the subject, we may state that the naturalist to whom we have referred, strongly condemned the practice of keeping single birds, both as cruel, and as injurious to their health. He gave it as his opinion, drawn from much observation, that there was no cruelty in confining certain species of birds in cages, if the cages were reasonably spacious, and they were not deprived of those social pleasures which constitute so large a proportion of the enjoyment which the Creator designed for them. The species from which pet-birds are generally taken, he considers naturally fitted to enjoy companionship with man; and like the dog and the horse, happier in a restricted sphere with him, than in a state of absolute freedom without him. But to separate the male and female bird, he considers, as we have said, both injurious to the health and happiness of these floating remnants of the vanished Eden.—*Saturday Evening Post.*

TELESCOPE GLASSES.

The manufacture of telescope glasses is one of the most intricate and nice undertakings in mechanism. The risk of securing good glasses even after months of labor, is very great, and consequently gives great value to a perfect one.

The manufacturers first take about 300 lbs. of flint glass and fuse it by a very hot fire. While in a liquid state in the furnace, the vessel containing it is walled completely up, and suffered to cool very slowly, sometimes occupying two months in the process. When perfectly cool the mass is fractured by a process which is retained a secret among manufacturers. The fragments being of various sizes are of different power of reflection, and are worked into glasses proportioned to their powers. In working them into form, the edges are first ground so that they can be looked through in every direction, in order that it may be ascertained if they contain any imperfections, such as cracks, specks of dirt, or bubbles of air. In case anything of this kind is discovered, they are cut into smaller size, but if perfect, then they are ground into size and form to suit the design of the manufacturer. When this labor is completed, they are annealed or heated almost to fusing, in order to give them a perfect polish and shape, and also to free them from brittleness. The process is slow and tedious, and requires great skill to make them perfect. An object glass which was found in the streets of Munich, when cleaned up and annealed, was sold for $3,000, and was only six inches in diameter.

The glass which is being manufactured for the observatory at Ann Arbor, is to be seven inches in diameter, and the whole telescope will cost only about twice that sum, so that it will be seen that nearly as much value is placed upon the small object glass, as upon the whole complicated machinery of the telescope.—*Detroit Adv.*

WOOD FIRES.—In many a green valley of New England there are children yet; boys and girls are still to be found not quite overtaken by the march of mind. There, too, are huskings, and apple-bees, and quilting-parties, and huge old-fashioned fire-places piled with crackling walnut, flinging its rosy light over many countenances of youth, and scarcely less happy age. If it be true that, according to Cornelius Agrippa, "a wood fire doth drive away dark spirits," it is nevertheless also true that around it the simple superstitions of ancestors still love to linger; and there the half-sportful, half-serious charms of which I have spoken are oftenest resorted to. It would be altogether out of place to think of them by our black, unsightly stoves, or in the dull and dark monotony of our furnace-heated rooms. Within the circle of the light of the open fire safely might the young conjurers question destiny; for none but kindly and gentle messengers from wonder land should venture among them.—*J. G. Whittier.*

SAMUEL APPLETON.

Once at the exhibition of a menagerie, the attention of the kind-hearted old man was attracted by a crowd of boys, trying to look at the animals through the seams of the tent. "How much," he asked of the door-keeper, "will you take to let them all in?" A bargain was immediately made, and by this wholesome operation, the happiness of a hundred or more penniless boys was secured for the afternoon. With the bluff heartiness that marked his deportment, there was not only a general benevolence, but sometimes a peculiar delicacy of conduct, which showed that his nature was marked by the finer shades of sentiment. By his will he had left a large amount of property to a favorite nephew. The nephew died, and it was represented to Mr. Appleton by his legal adviser, that, if he left his will as it was, that part of his estate would go to persons who were not at all related to him, and in whom he could be supposed to have no particular interest. Mr. Appleton, after maturely considering the matter, replied that he had concluded not to alter his will; that he believed his friends in another world knew what he was doing here; and he should be sorry to have his nephew see that the first act relating to him after his death was to divert from his nearest relations the legacy intended for him.—*North American Review.*

ESSEX COUNTY SOCIETY.

Through the polite attentions of the Hon. J. W. PROCTOR, of Danvers, we have the satisfaction to acknowledge the receipt of a copy of the Transactions of the Essex County Society for the year 1854. The publications by this society have ever taken a high comparative position with those of other societies in the Commonwealth, and, if we do not mistake, the present will fully sustain this character. We have not had opportunity to examine all the details. We have before spoken of the excellent instruction in the address, by Mr. FAY. The reports on the *dairy*, on *fruits*, on *vegetables*, on *swine*, on *horses*, on *milch cows*, on *sheep*, on *introduction of new plants*, on *farm* *implements*, &c., appear to be elaborately and carefully drawn, containing many valuable suggestions. On poultry there is an extended paper of twelve pages, in the peculiar style of the chairman, which serves as spice for the coarser productions, on growing cabbages, making manure, &c., which are among the more congenial labors of the farmer.

We are glad to see the topics of *under-draining* and *deep tillage* are about to be taken in hand in Essex, and, with their usual vigilance applied, we cannot doubt that benefits will accrue to the farmers. We wish all parts of the Commonwealth were as fully awake to their duty as they appear to be in Essex.

For the New England Farmer.

TURNIPS FOR PIGS.

Mr. Editor:—Have any of your correspondents had any experience in feeding pigs on turnips? Last June I found myself destitute of potatoes in consequence of the rot, with two pigs of eight weeks old, and nothing to give them except some Swedish turnips, which still remained hard and sweet in the cellar. I commenced giving them then, and, with the addition of the slops from the family, they were unusually thriving. They eat these with the greatest relish when cut up and given raw. Whether their keen appetite was induced by a somewhat short allowance previously, or from something peculiar in the kind of food, or of the animals themselves, I am not able to determine. In my not very extended experience in pig raising, I have never had them appear so well during their growing condition as these.

Reasoning on theoretical grounds, I see no reason why the turnip may not be valuable for growing pigs, as well as for growing cattle. They are easily digested, contain the necessary elements, especially nitrogen, for flesh-growing, and during the spring and early summer are in as sound a state as the potato. The important question for me to know is, whether they will relish them as well as mine have the present season. I have been in the habit, for many years, of picking off the outside leaves of cabbages and giving them to growing pigs. They will eat them with great relish, and I could never see but the cabbages headed just as well. Of course it will be understood that it is only in the growing, and not in the fatting condition, that such articles can be of any value.

As the potato is so difficult a crop with us, and the turnip of comparatively easy culture, it would be a valuable acquisition if some such substitute for the potato could be found.

Should any one have had experience of this kind, whether successful or not, I would be glad to hear from them on the subject through your paper.

In a recent article in the *Farmer* on Witch Grass, you made me say spent *tar*, instead of spent *tan*, for mulching trees. N. T. T.

Bethel, Me., *Jan.* 4, 1855.

Remarks.—Again we thank our correspondent for his favor. We fed, last year, from ten to seventeen swine on a mixture of Swede and flat turnips, beets, carrots and parsnips, boiled and mixed with a small portion of cob-meal. They ate it greedily and throve well. Will others give us their experience on this subject?

Reported for the New England Farmer.

LEGISLATIVE AGRICULTURAL MEETINGS.

The first agricultural meeting of the session of 1855, was held in the Representatives' Hall at the State House, on Tuesday evening, 16th inst., at 7½ o'clock. Owing, probably, to the stormy weather, but comparatively few persons were present.

The meeting was called to order by Elijah E. Knowles, the member from Eastham, who presided during the evening.

On motion of Mr. Merriam, of Tewksbury, a committee of five was ordered for the purpose of nominating an Executive Committee, who shall devise a plan for the conduct of the series of meetings and attend to its execution. The Chair appointed Messrs. Brooks, of Princeton, Freeman, of Orleans, Lyman, of Southampton, Stockbridge, of Hadley, and Coombs, of Middlefield.

The committee subsequently reported for Executive Committee, Messrs. Charles L. Flint, Secretary of the Board of Agriculture, Elijah E. Knowles, of Eastham, Hiram C. Brown, of Tolland, Granville B. Hall, of Worthington, and Wm. S. King, of Roxbury,—and their report was adopted.

Mr. Flint suggested that in the absence of any stated topic for the evening's discussion, gentlemen present from different parts of the State should give an account of the effect produced in their localities by the extraordinary drought of the past season. It had been in the line of his duty the past summer to visit almost every part of the Commonwealth, from Cape Cod to Berkshire, and he had noticed a great difference in different regions. In Nantucket, while the drought was at its height, the corn seemed to be but little affected, notwithstanding the dry, sandy nature of the soil; while, on passing from Nantucket and Martha's Vineyard to the Connecticut river valley, nothing but clouds of dust were to be seen. In his opinion such a drought had not been experienced in this State for ninety years. We need some means of guarding against these severe droughts. In England, farmers are not troubled by such unusually dry seasons. It rains there almost every other day in the year, while we do not get more than forty to sixty days of rain per annum.

Mr. Merriam, of Tewksbury, alluding to the exemption of Nantucket from the effects of the drought, said that the island was about 60 miles from the mainland, was a perfect plain about 3000 acres in extent, and destitute of trees, and formerly sustained 20,000 sheep. Although it has a sandy soil, it has a humid atmosphere, being surrounded by water, the same as Great Britain is. In Middlesex county the drought had been severe. The soil is generally of a clayey composition, and in ordinary seasons is very fertile. More profit was realized last year on corn sold at 66 cents, than this year at $1.05. On interval lands pumpkins and squashes yielded about the usual amounts and the hay crop was about equal to last year. Rye was almost a complete failure, and vegetables were cut short very much. Peat and intervale lands were the only kinds that raised profitable crops.

Mr. Hall, of Bradford, said the Chairman had remarked to him in conversation before the meeting that pieces of land in his neighborhood, (Barnstable,) manured with fish did not suffer from drought, and he inferred from that that lands not so manured were affected by the drouth. He did not understand the philosophy of it, and desired an explanation.

The Chairman said that on the south side of the Cape, at Harwich for instance, they manure their lands with a shell fish called "horse feet," and they never suffer from the drought. On his side of the Cape these fish were scarce, and hence not used.

Mr. Flint remarked, as a curious historical fact, that in the drought of 1823, farms upon which fish were applied suffered exceedingly from the drought. In regard to Nantucket, he would say that farmers there make great use of the carcases of sharks, composting them, and putting them upon their land. This fact might have something to do in averting the effects of the drought on the island.

Mr. Buckminster, of Framingham, said that the moisture of the surrounding ocean had great effect in Nantucket. In his neighborhood it was found that if the soil was kept in motion, by plowing and hoeing, that it did not suffer much from the drought. On well cultivated lands the hay crop did not feel the dryness much, as indeed it did not throughout Massachusetts, owing to the good start it got before the dry season came on. He urged frequent stirring of the soil, as plowed land attracts moisture both from the atmosphere, and from beneath.

Mr. Higgins, of Orleans, in reference to the "fish question," remarked that the inference that *all* kinds of fish would avert the drought would not hold good. The "horse feet," were a salt shell fish, and salt will make the soil give; but any fish of an oily nature would only operate to draw the rays of the sun, and thus aggravate the effects of a drought. "Horse feet" on corn operates well, imparting some nourishment and shielding from the drought.

The Chairman said that this species of fish were proverbial as a remedy for the drought.

Mr. Higgins further remarked that on the south side of the Cape, in Barnstable county, farmers were at one time insane in regard to fishing their land, but they found that the use of fish only impoverished and run out the land, and they have given up the idea.

Mr. Flint said he had labored under a misapprehension in regard to the nature of the fish applied to lands; he supposed they were all of the common oily kinds. Hence his allusion to the drought of 1823.

Mr. Merriam remarked upon the benefits derived from frequent stirring of the soil, and high manuring, as facilitating the absorption of carbonic acid gas from the atmosphere, an ingredient which enters largely into the composition of all plants. Plowing and manuring produce beneficial chemical changes in the soil.

Mr. Stockbridge, of Hadley, said the past season had been a remarkable one in regard to wet as well as dry weather, in the Connecticut valley. For years they had not had so wet a season. In the spring they had the greatest freshet ever known on the Connecticut; but by the middle of May it was very dry. As regards the crops in general, Hampden county falls but little short of ordinary years. At one time it was thought the corn would come short, but on alluvial lands the crop was good. Broom corn, which is a great crop in that region, never yielded so abundantly as this season. The first crop of hay was good, though not so large as in some years; the second was light. Potatoes were not much affected, and a fair crop was harvested. English wheat and rye were not materiallly injured by the dry weather; the former however, was cut off by blight and rust.

Mr. Lyman, of Southampton, (Hampshire Co.) said that in his section the potatoe vines kept green better this season than for several years, notwithstanding the drought, and a good crop of potatoes was raised, while the quality was better than the year before, and no signs of rot were manifested. Some particular pieces suffered from the drought. A good crop of corn was gathered, and the hay crop was an average one. In feeding his hay the first part of the winter, he thought it was not so heavy as usual and that it did not spend so well, but of this he could not speak decidedly. Oats flourished well where the land was in good condition. Still the drought was very severe. He never knew so many apples to grow in that county before, but they fell from the trees early and decayed rapidly, so that growers did not realize more than usual from that crop.

Mr. **Buckminster**, of the *Ploughman*, related ish observations along the line of the Boston & Maine Railroad. He noticed that English cherry trees, which had been growing for ten years, were dry in the leaf in the latter part of July, and fir trees and evergreens suffered in the same way. On digging four feet deep under an evergreen, the soil was completely dry—at least felt so in the hand. He attributed these results to the dryness of the season.

Mr. **Dodge**, of Sutton, said that in the south part of Worcester county, those whose lands were sufficiently deep and well manured did not suffer much by the drought, and never do. So far as his experience had extended he had found that it was necessary to make the soil deep and rich. On the hilly lands of Worcester county he believed that the salvation of the crop depended on loosening the soil to a great depth. A depth of ten inches he thought would remedy the evils complained of. His soil is clayey and loamy. He thought it no harm to bring up the subsoil to the surface, and turn the other under. He never had better crops of turnips than this year. They were planted on land plowed ten inches deep—turnips and grass seed together.

Mr. **Barker**, of Pittsfield, said he had observed the effects of droughts for twenty years, and he had never seen one yet which would affect a good farmer. Good farmers get good crops, while poor ones never will. Farmers in his section have had good crops.

The Chairman remarked that deep plowing might answer on some lands, but not on the Cape, where nothing but sterile sand would be turned up by deep plowing.

Mr. **Hall**, of Bradford, said he visited a nursery in New Bedford last summer, and found the young trees, particularly the pears, in a remarkably thrifty state, large and vigorous. He asked the proprietors if they did net manure highly, and was told that they did not; but instead, double trenched all their ground. It is an expensive process, costing $200 per acre. A few weeks since he again saw one of the proprietors of the nursery, and inquired about the drought in his vicinity. He said it was very severe, but he could not perceive that it had injured his nursery much if any. Mr. Hall also related another fact tending to demonstrate the value of stirring the soil for facilitating and preserving vegetation.

At the close of Mr. Hall's remarks (9¼ o'clock) the meeting adjourned.

U. S. Agricultural Society.—The Third Annual Meeting of the United States Agricultural Society will be held at Washington, D. C., on Wednesday, February 28, 1855. Business of importance will come before the meeting. A new election of officers is to be made, in which it is desirable that every State and Territory should be represented. Lectures and interesting discussions are expected on subjects pertaining to the objects of the Association, by distinguished scientific and practical Agriculturists.

The various Agricultural Societies of the country are respectfully requested to send delegates to this meeting; and all gentlemen who are interested in the welfare of American Agriculture, who would promote a more cordial spirit of intercourse between the different sections of our land, and who would elevate this most important pursuit to a position of greater usefulness and honor, are also invited to be present on this occasion.

Marshall P. Wilder, *President.*

For the New England Farmer.

RELATIVE VALUE OF FOOD.

In the *New England Farmer* of Jan. 13, I find an article copied from *The Plow, The Loom, and The Anvil*, on the subject of Root Crops. The article is, in the main, what every judicious farmer will approve; yet there are some indications of that *ultraism* which is the bane of all practical farming. Among other objectionable sentences I cannot help noting the following:—"The more diluted our food, provided we do not overtask the energies of the intestinal canal in the conveyance of it to its destination, the better for the health of the animal."

Now this means, if it means anything, that, the less concentrated the food of animals,—that is, the greater the proportion of bulk to nutriment,—the "better for the health of the animal." The writer does not seem to perceive that, in carrying out this doctrine, he must inevitably run it "into the ground;" for it comes to this, that, when food is discovered which contains no nutriment at all, it is better adapted than any other for sustaining animal life! We have all heard of people who lived on "faith and dumplings," and all agree that it is pretty hard feed; but our writer on "Root Crops" would give us *all* faith and *no* dumplings. It may be good doctrine to die by, but assuredly it is a hard one to live upon. The chameleon, fabled to diet upon the "circumambient air," would be a model animal to carry out such a principle.

It is argued by all writers on animal economy, (except perhaps the one here referred to,) that proper food for man as well as beast requires bulk as well as nutriment. A horse fed entirely on concentrated food, like Indian corn, will gnaw the manger in order to obtain the bulk of fibrous wood which nature requires; and if he cannot procure it, he will sicken and die. The Hindoos, it is said, who feed mainly on rice, which is the most highly concentrated form of food, (containing about 95 per cent. of nutriment,) will sometimes eat dry grass or splinters of wood. There can be no doubt that bulk as well as nutriment is required in order to sustain the animal functions; but *all* bulk and *no* nutriment must be quite as prejudicial as all nutriment and no bulk. The only real truth to be sought is the proper proportion.

The late Dr. Sylvester Graham, who, with all his ultraisms, had some very good ideas, and was well read in everything relating to physiology, was of opinion that wheat, rye or corn, ground without bolting, constituted about the proper proportion for the human stomach. This is about 60 per cent. of nutriment to 40 per cent. of bulk. He was also of opinion that about 20 per cent. of nutriment was the proper proportion for domestic animals, like the cow and the horse. Good English hay contains about ten per cent. of nutritious matter, and, of course, according to his theory, something more highly concentrated is required in order to develop the perfect animal. A moderate quantity of grain, ground and mixed in the form of "cut feed," has, in the experience of all growers of stock, been found best adapted to animal health and physical development.

This principle, or theory, does not tell well for the opinion of the writer referred to as regards the value of the English or flat turnip as a food for animals. That vegetable contains about 90 per cent. of water, and of the remaining ten per cent. more than half is woody fibre. Only about four per cent. of the turnip is nutrition. The potato, on the other hand, when divested of its eighty-five per cent. of water, is nearly all nutriment—or very nearly fifteen per cent. It is nearly four times as nutritious as the turnip, pound for pound. I would by no means discourage the raising of turnips, for the seed can be sown when it is too late to plant any other, and of course where no other crop can be raised for the season. They are useful and healthful to a degree, although they impart a disagreeable flavor to milk, and should not be fed to milch cows except in very small quantities at a time. No grounds capable of producing other crops, should be reserved for the flat turnip; but grounds from which early crops are harvested may be profitably devoted to this crop. In some seasons the turnip will grow well if sown as late as the twentieth of August, or even the first of September; and as the seed is easily raised, farmers and gardeners will lose nothing in scattering it, not too thickly, over grounds harvested up to those periods. But the turnip crop never ought to interfere with any other.

Neither do I agree with the same writer that the carrot is the most nutritious of all root crops. I think it will be found on analysis that the common turnip beet is more nutritious than the carrot—the saccharine matter in the former being entirely nutritious. This beet is also much better for milch cows, as the carroty flavor of milk is almost as bad as the turnip flavor. For horses, during the winter, the carrot is undoubtedly the best of all root crops, and for their use it should be freely cultivated. E. C. P.

Somerville.

For the New England Farmer.

MEASUREMENT OF CROPS.

MR. BROWN:—I would suggest to those interested, through the columns of your paper, the propriety of the adoption of a uniform rule for the measurement of crops for premium throughout the State. I am led to do this by the dissatisfaction manifested by many in relation to the rule adopted by the Plymouth County Agricultural Society in the measurement of corn for premium. By this rule, as is well known, an average square rod is selected while the corn is in the field, the product weighed, and by which the whole is estimated. Under this rule enormous crops of corn have been produced; for instance, a gentleman in this town last year raised 155 bushels to the acre, and this year upwards of 100 bushels of corn to the acre, I think, have been raised in the county. If this rule is the best, let it be adopted throughout the State; if not, let some other, for, as it is now, there is reason to believe some persons receive more credit for raising large crops than others simply by the measurement. HOWARD.

West Bridgewater, Mass.

WIRE FENCE.

The following letter from Hon. MARSHALL P. WILDER, President of the United States Agricultural Society, refers to the wire fence described and portrayed on our first page.

Dorchester, Jan. 15th. 1855.

CHARLES CROWLEY, ESQ., Agent, &c.:—Dear Sir,—I have recently examined some of the netting of the Lowell Wire Fence Company for fences, trellises, etc. From my own experience and that of others, I cannot doubt that it is perfectly practicable as a fence for fields and gardens, or that it is well adapted to all uses where a strong, close, elegant, economical and durable fence is required. Where stone is not abundant, or where lumber is expensive, as in many of our States, I should deem it the most practicable fence that could be procured. If our railroads are hereafter to be enclosed, as safety and economy demand—they can scarcely be fenced cheaper or better than by this mode of fence. The stouter kinds of this netting are of such strength, that cattle could not easily penetrate or pass it; while the closeness of the lighter kinds, renders them admirably available for garden uses, heneries, and poultry fences. Fencing like this, has for some years been extensively used in Great Britain; and, since it can now be made at a much less cost, by machinery, it would seem to be equally adaptive to the United States. I know of no fencing so good as this, that can be procured for $1,50 per rod, the highest price asked for the most costly kinds of this netting; and this is, probably, the only fencing of equal merit that can be bought for $1,50 per rod.

As a material for rose-trellises, grape-trellises, and ornamental work in gardens, I think it unequalled in cheapness, durability and beauty, by anything yet devised. It will, without doubt, eventually be received into general use, when its merits are appreciated by the public. Yours respectfully,

MARSHALL P. WILDER.

For the New England Farmer.

NATIVE CATTLE.

MR. EDITOR:—In the number for January of the *Journal of New York State Agricultural Society*, is the following testimony, that may be instructive to those who are not willing to admit that cattle, which are generally termed *native*, are of any value.

Mr. T. Wells, from Chenango county, under date of Dec. 16, 1854, writes: "I doubt very much whether there has ever been any better breed of cattle, either for beef or milking, than the native red cattle. It is *keeping* that makes the cattle." Mr. Thompson, President of the Yates County Society, writes to B. P. Johnson, Secretary of the State Society: "Some attention is paid to the breeding of Durhams and Herefords, but *native Americans* are most in favor for the dairy."

Perhaps it will be said the men who write thus are of the *Know-Nothing* order ; but if they are, I think they are in a fair way to be of the majority. So say those of my acquaintance whose judgment is most worthy of confidence.

Please oblige your readers by giving this a place in your *Yankee Journal*. ⁂

Jan. 15, 1855.

For the New England Farmer.

LETTER FROM MR. FRENCH.

A GLANCE AT WASHINGTON CITY MARKET.

The principal market of the city of Washington is upon Pennsylvania Avenue. The buildings consist of a large extent of low one-story brick and wooden white-washed structures, of no particular order of architecture, which, were it not disrespectful, might be described as *sheds* better than by any other words. These are divided into stalls, and are rented to the market-men. But the sales are by no means confined to these buildings. All around, on, and about the adjacent sidewalks and squares, on market mornings, three times a week usually, is a throng of sellers, principally blacks, in ludicrous variety of appearance and employment. Backed against the curb-stone are long rows of market carts and wagons, of all conceivable shapes. Here is a tolerable looking horse-cart, with a mule attached, having his mane sheared and his tale also, except a tuft of hair at the end, to gratify the freakish taste of his negro driver. There is a market wagon, of large size, with three or four hoops bent over it, and a large cotton covering, to shelter the half-dozen darkies who have come into the city in it, and who are now pursuing their separate duties of selling little commodities about the market. Many of these wagons, loaded with grain, vegetables, poultry and other eatables, come to their places during the night, or previous evening, so as to get good stands, which are appropriated by the first comer.

Squatting down upon the pavement, on all sides, are numerous old colored women, with little stores of fruit, eggs and the like, advertising their wares by word of mouth to the passers-by. *There* are three or four singular-looking animals, bearing some resemblance to small pigs, which a small nigger introduces to your notice by the question, "Have a *possum*, massa ? " There again is an old lady, who has bunches of the smallest kind of little birds, of the size of robins, dressed ready to cook ; and there another, with a coop of small live chickens, not of much larger size, which are sold at some twenty-five cents each, to be forthwith served up at the hotels for dainty morsels of food.

And under that wagon is a live pig, tied by one foot, looking as if he might have a year's experience with about two months growth, designed for immediate slaughter, or to be kept a few months longer, as the purchaser may think proper. A half-dozen living calves, of a few weeks' age, are lying, tied neck and heels, gasping for breath, on the hard pavement, and not far off as many cows, of all colors and shapes, for sale. Most of them are poor in flesh, though with marks of good qualities as milkers. Turkeys are sold, not by the pound, as with us, but at so much apiece, at prices not very different from those of Boston. I find good practice for all the knowledge of fracions which I derived from the arithmetic in my school-days. On my inquiring the price of potatoes, I received the edifying reply, "three fips for a quarter of a peck." A fip being six and a quarter cents, you have the basis for a calculation how much potatoes were sold at per bushel. That, however, was the highest retail price, the price by the bushel being from one and a half to two dollars.

I was quite shocked to see, exposed for sale, like vulgar ducks and geese, beautiful *swans*, killed for food ! Heretofore, I had regarded these stately creatures as intended solely to gratify our love for the beautiful ; but alas ! this utilitarian age pays little homage to that beauty which is not at the same time profitable. A common and excellent cheap article of food is exposed in abundance, cooked ready for the table, which they call hominy, and which ought to be used at the north. It is made of white corn, merely cracked and hulled, and boiled soft, and forms the best substitute for potatoes. It is eaten with meat, like the common garden vegetables with us. No yellow corn is used here for food, and little or no rye and Indian bread, such as is common with us. The market is abundantly supplied with game of all kinds, ducks, venison, quails and the like, and with finer mutton than is often found in Boston. Prices of provisions and every thing are arranged upon the principle that every office-holder shall spend his salary, more or less. Public opinion seems to demand this, and houses are constructed to meet this idea. There is no such thing as a cellar under one house in a hundred, so that provisions cannot be laid in for a winter, as with us, but the market-basket must go down three or four times a week, for a half peck of potatoes and a dozen apples, and a cabbage and three or four turnips, and so on, requiring as much time as the whole would be worth in our northern villages. Most of the pork sold here is of small size, of pigs weighing about a hundred pounds. Aside from the lard and middlings, animals of this size make much better food than the full-grown, over-fatted hogs of the northern markets. The idea is gaining ground in New England, I think, that there is more profit in killing our swine, at a year old, than in keeping them over an entire winter. Here, however, the dead bodies of these quadrupeds indicate that their sphere of action was not limited to a sty merely, but that a good long set of legs and a nose to match, were essential to their style of life.

One fact impresses all who come here from the north, that in every thing pertaining to agriculture, there is wanting the system, and neatness and energy, which educated free labor alone can develope.

I am expecting to visit the farm of a friend near the city soon, and will give in my next some idea of how a New England man cultivates a southern farm. H. F. F.

Washington, D. C., Jan. 8, 1855.

For the New England Farmer.

PEALING THE BASKET WILLOW.

MR. BROWN:—I have lately witnessed the trial of a machine, invented by GEORGE J. COLBY, of Jonesville, Vt., for peeling the *basket willow*, which is destined to become of great importance in this country. It does the work in the most perfect manner, is operated by one horse-power, and with two men, will peel one ton per day.

It has been fully proved, within a few years, that the European Osier will thrive as well in this as in the old country, and those cultivated here are sought after by the manufacturer in preference to the imported. There are annually imported to the United States over *five millions dollars* worth, besides the manufactured article, which amount is very large, all of which might be cultivated in this country to great advantage.

The only objection to the cultivation of the willow in this country, has been the scarcity of labor required to peel it for market, as it must be done in the spring, during the short period that the bark will strip, and in many localities the required labor cannot be had. The estimated cost for peeling by hand, is about $40 per ton. That objection is now removed by the invention of a machine for the purpose. I doubt if there is any business that will yield the husbandman as large a profit as the cultivation of the *willow*, by those who have suitable soils. It will thrive well on most of our soils, or any that are rich and moist, or what is termed good grass land; but that is best adapted which is natural to our native willow, and will yield an average of two tons per acre. The present price for the willow is 6 cents per pound, with an increasing demand, and much larger than the supply.

The best willow for cultivation of which I am acquainted, is the *Salix viminalis;* it grows in this locality from eight to ten feet high, is very smooth, free from knots, and never branches. There are other varieties that are valuable for hedges, or live fences, which will yield an annual profit for Osiers. J. R. JEWELL.

Bolton, Dec., 1854.

FORGIVE AND FORGET.

BY THE AUTHOR OF "PROVERBIAL PHILOSOPHY."

When streams of unkindness as bitter as gall,
  Bubble up from the heart to the tongue,
And meekness rising in torment and thrall,
  By the hand of Ingratitude wrung—
In the heart of injustice, unwept and unfair,
  While the anguish is festering yet,
None, none but an angel of God can declare
  "I can forgive and forget."

But if the bad spirit is chased from the heart,
  And the lips are in penitence steeped,
With the wrong so repented the wrath will depart,
  Though scorn on injustice were heaped;
For the best compensation is paid for all ill,
  When the cheek with contrition is wet,
And every one feels it is probable still,
  At once to forget and forgive.

To forget? It is hard for a man with a mind,
  However his heart may forgive,
To blot out all perils and dangers behind,
  And but for the future to live;
Then how shall it be? for at every turn
  Recollection the spirit will fret,
And the ashes of injury smoulder and burn,
  Though we strive to forgive and forget.

O, hearken! my tongue shall the riddle unseal,
  And mind shall be partner with heart,
While thee to thyself I bid conscience reveal,
  And show thee how evil thou art;
Remember thy follies, thy sins and thy crimes—
  How vast is that infinite debt!
Yet Mercy hath seven by seventy times
  Been swift to forgive and forget.

Brood not on insults or injuries old,
  For thou art injurious too—
Count not the sum till the total is told,
  For thou art unkind and untrue;
And if thy harms are forgotten, forgiven,
  Now mercy with justice is met;
O, who wouldn't gladly take lessons of Heaven—
  Not learn to forgive and forget?

Yes, yes, let a man when his enemy weeps,
  Be quick to receive him as friend;
For thus on his head in kindness he heaps
  Hot coals—to refine and amend;
And hearts that are Christian more eagerly yearn
Over lips that, once bitter, to penitence turn,
  And whisper, "forgive and forget."

For the New England Farmer.

MACHINE FOR CHOPPING BRUSH.

MESSRS. EDITORS:—In passing through Methuen, a few weeks since, I had occasion to call on Col. CHARLES E. STANLEY, of that town, when I was shown by that gentleman a machine, or rather, cutter, belonging to him, to which horse-power is applied, for the purpose of cutting limbs and brush at the door. It is called "Daniel's patent" of Vermont, being very much on the principle of some hay-cutters, only on a much larger scale. Two huge knives, about eighteen inches long, one-half inch thick, and four and a half in width, are strongly fastened on the shaft roll. A good feed roll is also applied. Hard wood limbs, without trimming, that are not more than three inches, or pine, that are not more than four and one-half inches through at the butt, are cut with ease. By changing the gearing, they can be cut any length desired, from four and one-half to one-fourth of an inch in length. When green pine limbs are cut two inches long and spread upon a floor not more than ten inches in depth, they will dry so as to burn well in a week.

Col. Stanley says he can cut limbs and brush to the above degree of fineness faster than a smart man, with a good yoke of oxen, can haul and dump them from one-fourth of a mile distant. The advantage of cutting it so fine is, that it brings much scraggy and otherwise worthless brush, up to more than the value of its weight in solid wood, which, in these times of scarcity and high prices of fuel, is an object of too much importance to be overlooked. Colonel Stanley's neighbors bring brush to him to be cut on equal shares. As near as I could judge, this machine will do the work of forty men.

The reason that the chips dry so quick, is, that they are not cut square off, but obliquely, one side being concave and the other convex; consequently they are shattered to such a degree, that the air is admitted entirely through them, and the drying process immediately commences.

Danvers, Jan. 16, 1855. *******

"IDLEWILD."

From an interesting letter which appeared in the columns of the *Rochester Advertiser*, we condense a brief description of Idlewild, the garden home of N. P. Willis. It is situated on the western bank of the Hudson river, a few miles south of the town of Newburgh. In its immediate vicinity are many beautiful country seats, including among others those of J. T. Headley, the artist Durand, and the late lamented Downing, all of which are adorned by the rarest embellishments of art. But Idlewild, situated amid the most lively scenery of the valley of the Hudson river, is the most beautiful country seat in the region. The domain comprises about one hundred acres of land, which, when they came into the possession of Willis, were clothed in a dense black forest of cedars, firs and pines, and other mountain trees, as wild and thick as when the Indian war-hoop echoed through their shades. The grounds possess a great variety of surface, scene and prospect, and the fine taste of Willis has seized upon every opportunity to enhance the charms which nature has grouped in such harmonious contrast.

Running diagonally through the estate is a broad, deep glen, over whose rocky bottom flows a clear cold stream of water. Willis, by means of jutting rocks and artificial dams, has broken this stream into singing cascades and murmuring waterfalls. In one place he has lured a portion of the waters from their channel, to fill a pond for his gold fish. In another he has taken half the stream to form the shooting jets of a fountain; and still further down the glen he has checked its flow and swollen it into a miniature lake for his little boat. At several points along the stream he has thrown rustic bridges from bank to bank. The view from the lower extremity of the glen upward, through the deep vista of trees joining their branches over my head, is said to be very beautiful. It resembles a vaulted cathedral; and the imaginative eye may behold in the large brown stones, with their mossy sides, which are scattered in picturesque confusion throughout the scene, gray, cowled monks, counting their beads for vesper prayers. The ground is intersected in almost every practicable direction by carriage roads, and narrow footpaths wind around the sides of the steep cliffs, amid thickets of cedars and pines, clumps of fir and weeping larches, and solitary old oaks, the majestic monarchs of the forest.

The house is situated on a high point, commanding a view of the noble Hudson on the east, the magnificent scenery of the Highlands on the south, and on the north and west a thick mass of trees, streams, and ruined hamlet cottages. It is built in the English villa style, with piazzas and deep bay windows facing the river, and abounds in gable roofs, with oriole and dormer windows jutting out, and clustering chimneys terminating the pinnacles. The interior is adorned with rare curiosities, collected in Europe and America—paintings of distinguished personages, landscapes of beautiful scenery, marbles, bronzes, medals, statuary, and engravings in rich profusion.

This is Idlewild.

SERF LABOR IN POLAND.

In every village is an overseer, whose duty it is to call in the evening at each hut, and notify the inmates as to the part of the plantation where they are to meet the following morning, and be ready to start for work. Men, women and children are included in this order, of course; they assemble as directed, and are then driven like so many oxen to their labor. Of whatever kind the work may be, the women are obliged to toil as the men; the children are assigned lighter tasks, such as picking stones, &c. Over each division is placed an overseer, having in his hand a whip of braided strips of leather, and should any one presume to stop even for a moment, the lash is unmercifully applied; children are not exempt from this infliction, and whoever may be the object of punishment, he or she, is obliged to kiss the hand or foot of the inflictor. Should any one refuse to do so, as is sometimes the case, the poor creature is laid upon the ground, and receives forty additional stripes, then with blood trickling from his back returns again to work. In some instances (the overseer being in an unusual passion,) children, perhaps a son or a daughter, are required to hold down a parent, whilst another member of the same family is made to administer the lash with his utmost strength. These things seem heart-sickening to relate, nevertheless they are true, and not a day passes without many individuals being subjected to such treatment. When they leave their miserable homes in the morning, each peasant carries upon his back a coarse cloth sack, containing the dinner of its bearer; this consists of a loaf of brown bread, having the appearance of baked sawdust; and if the bearer has been so fortunate as to have recently killed a pig, he takes with his bread a piece of raw pork. Before commencing work, these sacks are deposited in heaps upon the ground, and at noon, when the signal is given, they rush with the speed of half-starved animals, every one for his bag, and then commences a devouring of bread and salt in the most ravenous manner. Each gang is allowed a mug of water, and this is passed from one to another until all have been served. Such is the manner in which these poor creatures toil on through their period of existence, without a ray of hope to cheer, or a single solace to alleviate their woes.—*Allen's Autocrasy of Poland and Russia.*

FARMERS' CLUBS.

We find the following excellent article in our exchanges, and wish we could give the writer credit for performing so good a deed, as that of writing it, but there is nothing attached to it by which we may know its paternity.

"We do not mean Herculean clubs, nor goad sticks, to quicken the pace of Buck to keep up with Bright. We mean no such un-farmer-like expedient to quicken the pace or sharpen the intellect. It is the farmers' social club for mental and agricultural improvement that we have in our mind's eye, and about which we propose to stir up the thoughts of farmers, 'by way of remembrance.' Old soldiers love to fight their battles o'er again, and old men like to discourse of what occurred in the days of their youth. Long time ago we remember attending a meeting of farmers' boys for amusement and instruction when the merry sentiment went round the ring, with the action suited to the word—

"Thus the Farmer sows his peas,
And thus he stands and takes his ease;
But you nor I, nor no one knows
How oats, peas, beans and barley grows."

It was an ancient farmers' club in miniature, and we know what lad it was of the number who married the district 'school-mar'm,' and in after life was sure to get a premium at the cattle show for the best butter, and won the reputation of being the best farmer in the county. It was the son of a Scotchman, who was always first and foremost at the juvenile meeting, when amusement was always blended with instruction. Those meetings taught us the useful lesson, that a little often shows what a good deal means. While the scholars in our county districts are profitably spending a winter's evening at the spelling school, would it not be well for their fathers to assemble in some convenient place, and in a free and familiar manner, 'tell their experience' in farming, and communicate to each other how they manage to raise the best stock, and enter into all the minutiæ and variety of good husbandry? It seems to us that much useful information would be elicited, and that each and all would derive very great benefit from participating in so pleasant and profitable a discussion. Such farmers' clubs are held weekly in many of the school districts of Massachusetts, Maine and New Hampshire—why should they not be held in every town and district in Vermont? Can any one assign a good and sufficient reason why such meetings of the 'lords of the soil,' for mutual improvement, and for discussing the great and paramount question, what shall be done to promote agriculture, may not be as pleasant and profitable in Vermont as they are in other States? Questions given out at one meeting and discussed at the next, will elicit thoughts and important facts, excite a laudable ambition to excel in word and in deed, in theory and in practice. Merchants, mechanics and manufacturers hold such meetings, and why should not nature's noblemen do the same and share the rich reward? 'Can any one man working alone on his farm, learn as much as one hundred men?' May not each discover some practical and important fact, and should not his neighbors know it! Let farmers hold such meetings and take their sons and workmen with them. 'A farmer must have been slothful indeed, if, during the past year, he has not learned *one* new fact in relation to agriculture; and should a hundred neighbors meet, then each will learn ninety-nine new facts for one communication. Pretty good interest, surely; and what is better, the givers and the receivers each get their pay down. What farmer that deserves the noble name, ever attended such a meeting without learning something new, practical and useful?"

ADVICE TO CONSUMPTIVES.

Eat all you can digest and exercise a great deal in the open air, to convert what you eat into pure healthful blood. Do not be afraid of out-door air, day or night. Do not be afraid of sudden changes of weather; *let no change, hot or cold, keep you in doors.* If it is rainy weather, the more need for your going out, because you eat as much on a rainy day as on a clear day, and if you exercise less, that much more remains in the system of what ought to be thrown off by exercise, and some ill result, come consequent symptom, or ill feeling, is the certain issue. If it is cold out of doors, do not muffle your eyes, mouth and nose, in furs, veils, woolen comforters, and the like; nature has supplied you with the best muffler, with the best inhaling regulator, that is, two lips; shut them before you step out of a warm room into the cold air, and keep them shut until you have walked briskly a few rods and quickened the circulation a little; walk fast enough to keep off a feeling of chilliness, and taking cold will be impossible. What are the facts of the case? look at the railroad conductors, going out of a hot air into the piercing cold of winter and in again every five or ten minutes, and yet they do not take cold oftener than others; you will scarcely find a consumptive man in a thousand of them. It is wonderful how afraid consumptive people are of fresh air, the very thing that would cure them, the only obstacle to a cure being that they do not get enough of it; and yet what infinite pains they take to avoid breathing it, especially if it is cold; when it is known that the colder the air is the purer it must be, yet if people cannot get to a hot climate, they will make an artificial one, and imprison themselves for a whole winter in a warm room, with a temperature not varying ten degrees in six months; all such people die, and yet we follow in their footsteps. If I were seriously ill of consumption, I would live out of doors day and night, except it was raining or mid-winter, then I would sleep in an unplastered log-house. My consumptive friend, you want air, not physic; you want pure air, not medicated air; you want nutrition, such as plenty of meat and bread will give, and they alone; physic has no nutriment, gaspings for air cannot cure you; monkey capers in a gymnasium cannot cure you, and stimulants cannot cure you. If you want to get well, go in for beef and out-door air, and do not be deluded into the grave by newspaper advertisements, and unfindable certifiers.—*Dr. Hall.*

TRANSACTIONS OF THE NEW YORK AGRICULTURAL SOCIETY.

Through the polite attention of the Secretary, B. P. Johnson, Esq., we have before us the Transactions of this Society, for the year 1853. It is enlarged and printed in a style deserving much praise. In its paper, typographical execution, illustrations and binding, it surpasses its predecessors, showing that the arts connected with book-making are improving, *pari passu*, with the science and art of agriculture. Massachusetts must look well to her laurels in these respects.

This fine volume of 780 pages is filled with varied and valuable information, showing not only the actual state of agriculture at the present time, and the advance that has been made on the past, but also a steady purpose to incorporate into the mass of knowledge available to the cultivators of the State, the discoveries in science and art, that are made in other countries and climates.

The first thing we notice is a copious and well-arranged index, adding much to the value of the volume.

We next, have Mr. Secretary Johnson's report to the legislature, showing briefly what has been accomplished, and making important suggestions for the future.

We then have the address of William C. Rives, of Virginia, delivered at Saratoga in 1853. This address contains some broad national views of the paramount influence of agriculture to this country. Then follows a highly valuable lecture upon *flax*, delivered at the same place, by John Wilson, of Edinburgh. This is a subject of great importance to this country, especially when considered in connection with the improved methods of preparing the fibre for the use of the manufacturer. The statistics of the flax industry which Mr. Wilson presents are of a startling character to one wholly unacquainted with the subject. Great Britain is paying annually twenty-five millions of dollars for the flax and hemp which she manufactures, and *seven and a half millions for flax-seed*, and *two-and-a-half millions for linseed cake*, and requires 600,000 acres to produce the supply which she needs, while her demand is annually increasing. One million, sixty-eight thousand, six hundred and ninety-three spindles are employed in the United Kingdom in spinning linen, and six hundred and forty thousand in other countries.

In 1850, Great Britain manufactured 110,000,000 yards of linen. In 1852 she exported linen goods to the amount of about $26,784,355, fifteen millions of which came to the United States. These statistics are of the most suggestive character. Why should not the United States at least supply the raw material sufficient to furnish the quantity in a manufactured state which she demands for her own consumption?

The committee upon flax and its culture state that there is in the State about 8,000 acres under flax culture, yielding about $15 profit per acre, over the expense of cultivation.

Mr. Wilson's lecture is followed by a condensed description of the characteristic and distinctive points of several of the breeds of imported stock. The next subject of importance is the report on *farm implements*. We have not space for the remarks we should be glad to make on this subject. Yankee inventors must look to their laurels in this matter, or the New Yorkers will bear away the crown. The next report is upon *cooking-stoves* and *furnaces*, showing the wide range of observation taken by the Society.

Then we have descriptions of *thirty-five* new varieties of *Pears*, by a nursery firm at Rochester. We cannot but admire the perseverance of nursery-men in producing new varieties of this delicious fruit. We have sometimes admired their ingenuity also, in pointing out distinctions where but the shade of a shadow of difference existed. We should be glad to know how many and which among the varieties of pears already produced, are really valuable and worth cultivation. Professor Wilson appears before us again in the next article, and gives us an account of the *sugar-beet*, and various statistics from Continental Europe relating to the subject.

The *salt manufacture* is one of great importance in the State of New York. The production has increased in little more than fifty years from 25,000 bushels, to about *five-and-a-half millions* This business the Agricultural Society has taken under its fostering care.

The next article of general interest relates to a species of *weevil*, the *Ithycerus Noveboracensis*, an insect that has committed extensive ravages upon fruit and forest trees in various parts of the Northern States, from Dr. Fitch, of Salem, N. Y., and Dr. Harris, of Cambridge, Massachusetts, with some remarks upon the *Palmer worm*, by Dr. Harris.

Then comes the account of the *annual meeting* of the State Agricultural Society, with the reports of the several committees. Many of these reports are upon subjects of the highest importance to the farmer. Several of them were prepared with great care and labor, and contain facts and suggestions of much interest. An article upon the origin, culture and uses of *Indian corn*, will amply repay the careful attention, not only of the cultivator, but of every housewife in the country.

The *Treasurer's account* shows that the receipts of the Society, for 1853, were $12,684, and that after paying current expenses, premiums, &c., they have a balance of $802,00 to carry to next year's account.

The remainder of the volume is occupied with *abstracts of the reports* of the several county societies, and extracts from the addresses delivered at their annual meetings, thus bringing before us the condition and doings of the several counties in one connected view. We wish we had space to make copious extracts from several of the county reports;—but we can only commend them to all who are so fortunate as to obtain the volume. The only thing which we especially regret in the volume is the absence of the labors of Dr. SALISBURY. We trust the managers of the Society do not consider that there is no more occasion for his analytical services. The good which he has so ably commenced, should, under their auspices, be carried forward unto perfection.

GIFFORD MORGAN COLT, VERMONT.

This engraving represents the four years old *Gifford Morgan Colt*, exhibited at the Vermont State Fair at Brattleboro', September, 1854, and received the first premium of $15, in the class of Woodbury Morgans, from four to seven years old horses.

He is a very dark chestnut color, and is a descendant of the old Gifford and Green Mountain Morgans, and is claimed on the part of his owners to be the most thorough-bred Morgan now living of his age. He is a colt of great action, and is considered a very characteristic and favorable specimen of the breed, in all particulars. His last year's colts bear a strong resemblance to the old Morgan family. He is owned by J. H. PETERS & Co., Bradford, Orange County, Vt.

For all uses, the farm, the road-team, or the carriage, we do not believe the Morgans, as a breed, are excelled by any other. Their carriage is frequently lofty, and often very graceful. Their temper is docile, so that boys and women may easily manage them when well broken, and their powers of endurance, even as roadsters, almost beyond belief. We scarcely can look upon one of the best of his type without a sort of fascination.

PHOTOGRAPHIC COUNTERFEITING.

A Cincinnati gentleman writes to the *New York Tribune*, describing the results of some experiments which have been made in that city, by Mr. Fontayne, a daguerreotypist, relative to the art of photographic counterfeiting. The counterfeit notes, he says, manufactured in this manner, far surpass in the perfection of their details any thing of the kind which has ever been done by the old method of engraving. Every line and every speck is accurately copied, so that when the photographs are taken upon the proper bank note paper, they defy detection, either by the unaided eye or by the microscope. A number of bills, copied in this way by Mr. Fontayne, were presented at various banks in the city of Cincinnati, and in every case they were pronounced, after careful inspection, to be genuine.

By this newly-discovered system of photography, all kinds of ordinary writing or printing may be copied—checks, notes, autographs or letters. The only safeguard to the public in respect to bank bills, seems to lie in the fact that bright red, blue or green colors, cannot be imitated by the photographic process, and that bills which are partially printed in these colors, are consequently secure from the possibility of counterfeiting. Bills counterfeited by the photographic method, may always be detected by wetting them with a solution of corrosive sublimate or of hydriodate of potassium—the liquid immediately turning the photographic picture white. This test, however, would prove but a poor safeguard to the public generally.

Reported for the New England Farmer.

LEGISLATIVE AGRICULTURAL MEETINGS.

The second meeting of the series was held at the State House, on Tuesday evening, 23d inst. There was a good attendance. The meeting was called to order by Mr. **Knowles**, of Eastham, and Mr. E. W. **Bull**, of Concord, was invited to occupy the chair.

Mr. Bull opened the discussion by some remarks upon the cultivation of the small grains. Massachusetts, he said, pays annually $10,000,000 for flour. Yet if her soil was properly cultivated, she could sustain a population equal to twice the present; and, in view of the present high price of breadstuffs, the cultivation of the cereal grains is of more than usual importance. Rye, perhaps, is the grain which is, on the whole, best adapted to our sandy soils and dry seasons. He had tried guano in raising it, on a piece of dry, sandy land, which had not been manured for ten years probably, being in grass all the while, of which hardly enough was cut to pay for the trouble. The land was plowed in September to a good depth, and two hundred weight of guano to the acre harrowed in on the furrow, after which five pecks of seed to the acre were sown, which produced a good stand of plants, the season being favorable. The amount of seed was too much, however, for when harvest-time came, the grass-seed sown with it was smothered. In the spring, 50 lbs. additional of guano was sowed on one-half of the acre, while on the other half none was applied. The difference in the yield of the two half acres, was only one bushel in favor of the extra manuring, from which he concluded that manuring beyond 200 lbs. to the acre with guano for rye, was not profitable. One-half of the rye was cut the first week in July, and was found to be much whiter and better than the rest, which was cut a week later. In England, it is the practice of farmers to cut their rye as soon as the stem is yellow under the ear, and by so doing the flour is much whiter. His experience confirmed the utility of the practice.

The subject of cereal grains was adopted for the evening.

Mr. **Knowles**, of Eastham, said that formerly rye was not considered to be worth more than half as much as it now commands in the market. At present prices, he considered it as profitable as any crop our fathers could raise. As to raising wheat, but little has been done on the Cape except at Orleans, where it has not been attended with much success, owing, perhaps, to inexperience. Either rye or barley, however, is profitable. The trouble with rye has been in sowing it broadcast, and not harrowing in deep enough. He thought it would leave the land in as good condition as any crop.

Mr. **Jenkins**, of Andover, said, in relation to raising grain alone, he did not know how it could be made profitable in the eastern part of Massachusetts; but thought that, in connection with English grass, it could be made remunerative. It is a mistake to attempt to raise grain and grass together on dry, sandy land. Most farmers in this part of the State have some very wet as well as very dry soils on their farms, and their policy should be to gravel the wet land and manure it well, for the raising of grass, constantly reserving the dry land for grain, which will not need so much manure.

Mr. **Freeman**, of Orleans, did not think wheat could be raised profitably on the Cape, even if the land was manured highly, and he believed that was the general opinion there. Although wheat was once raised successfully there, it cannot be done now. There was some property existing in the soil then which it does not possess now. He had seen corn taken off of land and wheat put on, but it would not grow—while grass, following corn in the same way, flourished vigorously, showing that there was something wanting for the wheat. There was no difference in this result between winter and spring wheat.

The Chairman remarked that Mr. **Brown**, of Concord, who had raised fine crops of wheat, had made use of lime to the extent of 15 bushels to the acre, sown broadcast, and perhaps to this manure his good crops were attributable.

Mr. **Howard**, of the *Boston Cultivator*, said it was formerly supposed that a good deal of lime was necessary to secure a good crop of wheat; but Mr. Emmons, the State geologist of New York, after analyzing the soils of all parts of the State, found that the lands of the best wheat-growing counties contained the least lime. In Seneca county, at present the greatest wheat county in the State, only one-half per cent. of the ingredients of the soil is lime. He mentioned this to show that the utility of lime for raising wheat was doubtful.

Mr. **Bradbury**, of Newton, said that in the wheat-growing counties of Pennsylvania and Maryland, great quantities of lime were used, and it was considered indispensable. They formerly raised large crops of wheat without any manure; but their lands gave out, and geologists advised the farmers to replenish their lands with lime. They did so, and the result was that they obtained as good crops as they ever did. In some of these counties there is plenty of limestone, from which the farmers supplied themselves, while in others there was not; and the good effect of the lime was so obvious, that the farmers in the non-limestone counties transported limestone from the others to manure their lands. In some parts of Pennsylvania and Maryland, the roads are macadamized with limestone, which, becoming finely pulverized, is blown by the wind upon the adjoining fields, and it is found that the land along these roads is fertilized exceedingly by the lime thus thrown upon it. It is the practice among farmers in Cumberland, Dauphin and Franklin counties in Pennsylvania, and in Maryland, to apply 80 bushels of unslacked lime per acre once in about seven years, plowing it in after it becomes pulverized by the action of the sun and rain. They do not expect much from it the first or second year, but during the third and fourth they reap the benefit.

Mr. Howard said he did not deny that lime was an essential element of the soil, and constituted a part of the food of plants, which should be supplied with the proper quantity; but he did not think that the state of things in Pennsylvania was a just criterion for the granite soils of New England.

Col. Newell, of Essex, said that wheat did not grow so well in his county now as formerly. He had known 40 bushels to the acre to be raised, but that quantity gradually fell off to 5 or 6 bushels. What the reason was he could not tell. Latterly they had succeeded better; but of this, also, he did not know the cause. He had raised wheat for thirty years, getting all the way from 40 down to 5 bushels to the acre. Had never used lime but once, applying then ten casks to the acre, and harvesting 20 bushels of wheat per acre. The land was laid down with grain to grass, and he got two large crops from it; but whether it was owing to the lime or not, he could not say. There is something in the land which will not produce wheat, while it will yield larger crops of grass than ever before.

Mr. Jenkins inquired in regard to planting wheat in drills, and was answered by Mr. Howard, who said that this method was pursued to some extent in New York and Pennsylvania. By it the land could be kept free from weeds, and thus promote the growth of the grain.

Hon. Seth Sprague, of Duxbury, said that Mr. Webster, when he first commenced farming at Marshfield, purchased seven cargoes of lime and applied it to his land; but of its specific effect, he could not speak, although its use was discontinued subsequently, and it was thought by farmers in that vicinity that it was of no benefit to the land. In his opinion, it exhausts the land.

Mr. Jenkins related an instance in which a friend of his purchased a large quantity of lime, and applied it to his land for various crops, but he could not raise a thing.

Mr. Bradbury remarked that this last case verified his statement in regard to the use of lime in Pennsylvania, where they do not expect much profit until the third and fourth years, by which time the land is restored to its natural strength. Besides, farmers there put on vast quantities, much more than farmers here would think of doing.

Mr. Buckminster, of the *Ploughman*, inquired what use was made of the land for the first two years, to which Mr. Bradbury responded, that once in four or five years, they put in clover. The farmers there do not calculate on getting grain from the land more than half of the time. The lime does not tell till the third and fourth years, after which, the land again declines.

Mr. Buckminster thought that at this rate farmers could hardly afford to put on 80 bushels to the acre.

Mr. Bradbury said that the lime was manufactured very cheaply there, owing to the abundance of a poor quality of wood which was not profitable for marketing, and they were not so particular in burning the lime as if it were to be used for building purposes. He had made it himself at a cost of only 5 cents per bushel, and it could be bought for 8. He would not recommend its use here. He simply made a statement of what he had seen and known; but thought the matter should be considered by farmers.

Col. Newell thought that lime would be a cheap manure at the cost here, if it would produce similar effects on our soils, and last seven years. Farmers here cannot manure their land so cheap, under the present system.

Mr. Proctor, of Danvers, said two purposes were to be regarded—first, to raise grain, and second, to fit the land for grass. In his early days, barley was an excellent grain to lay down land with; it paid well, and he had known 40 bushels per acre to be raised with common manuring. It had to be abandoned, however, for awhile, owing to a blight caused by an insect; but latterly it is coming forward again, and is a very fair crop for seed and grass. Rye, in Essex county, is the most profitable crop the farmer can raise, and for eight or ten years he had known it to yield 35 to 40 bushels to the acre, of fine grain, and this on a rocky, shallow soil. It was done by thorough plowing—9 to 12 inches,—and liberal application of manure, of home manufacture. The crop of straw often yields $10 or $15 per acre. Of wheat, any man, with good cultivation, can raise 30 to 40 bushels per acre; this had been demonstrated by Mr. Poor, of Andover. Oats, too, may be cultivated to good advantage; he had known 50 bushels per acre to be raised. All these grains can be raised advantageously, with good cultivation—the ground well pulverized and manured. He did not believe lands could be manured well, except with that made on the farm.

Mr. Dodge, of Sutton, said that cereals had not proved a profitable crop in Worcester county. Ten years ago, 50 or 60 bushels of barley per acre were obtained, but of late years, no grains could compare with grass as regards profit. He would like to know if there was any method by which they could secure good grain crops in that county. He thought the rye crop might be made profitable to farmers, on account of the demand for the straw. He did not think lime could be used in Massachusetts. It is a deadly enemy to the manure heap, dissipating the ammonia which it contained, and if used on land in connection with other manures, would produce the same effect.

Col. Newell said that a few years ago, barley died out in Essex county, but last year he raised 50 bushels to an acre, and he thought it was coming round again.

Mr. Jenkins made the same remark in regard to barley, and rye, also. He considered rye the most profitable grain crop which can be raised in the eastern part of the State. He would like to hear this revivification of crops explained. Was it owing to the soils or the atmosphere? He referred to the fine wheat crops of Mr. Poor, alluded to by Mr. Proctor, and remarked that he had seen them. Other farmers in the place had equally good crops, but for the last few years, and since Mr. Poor sold his farm, good crops have not been raised, and the crop seemed to have left them. He wished farmers to try experiments on a small scale with lime and other manures, to see if the small cereal grains could not be raised with a certainty of good crops.

Mr. Flint, Secretary of the Board of Agriculture, read some statistics collected by him the past year, showing the average crop of certain grains in different counties of the State the past season. Of oats, in Essex, an average of 35 bushels to the acre, at a cost of $11, not including manures. Worcester, 25 bushels, at a cost of $9. Barley—Essex, 28 bushels, at cost of $11, crop one quarter less, on account of drought; Middlesex, 15 bushels, $9,50, crop one-third less on account of drought; Worcester, 25 bushels. Wheat—Essex, 12 bushels; Middlesex, 18;—Worcester, 15; Berkshire, 17; Hampden, 15; Franklin 15.

Mr. Fay, of Essex, made some interesting remarks in regard to the culture of grain in this country and in England. He thought that the decline in the production of wheat in this State was owing to the system of cultivation which had been pursued. We began by cutting down the forests and raising wheat without manure, until those qualities required by it are exhausted; and this system is still being pursued all over the country. In England and Scotland, where he had travelled extensively, the same system was at first pursued, getting large crops at the outset, and then rapidly diminishing. To remedy this evil, they resorted to underdraining, high cultivation, and rotation of crops, and by this means their exhausted lands have been made the finest in England. Lime is there considered an essential ingredient, and it has been applied to all these lands. Our lands can be brought to the same high state of cultivation, by a proper rotation of crops and high manuring, and he was confident that Massachusetts could grow wheat as well as any other State in the Union, when we pursue the right course in this respect. He knew of no better land anywhere for growing wheat than the valley of the Merrimack. Drilling is the only mode of planting grain in England, and almost every other crop is planted in the same way, a machine being used which manures the ground and drops and covers the seed at the same time. The crops are also hoed while growing, which adds greatly to the yield. The wheat crop in England and Scotland, is a certainty, on account of systematic cultivation. Mr. Fay thought the great variation in the yield of wheat on the same soil in this country, was owing wholly to a variation in its cultivation. It had not failed in Egypt for 900 years, and need not here if the land is properly cultivated.

After a few remarks from Mr. Proctor in regard to manures, the meeting, at a few minutes past 9 o'clock, adjourned.

Wire Fences.—Charles Cowley, Esq., of Lowell, the Agent of the Manufacturers of Wire Fences, has prepared a lecture or two on the subject of fences, which he will deliver upon invitation. He has drawings to illustrate his subject, and will be able to give some startling facts with regard to the cost of fences in the State, as well as to suggest how the object of fencing may be effected at a less cost, and with infinitely more beauty and harmony with the natural scenery of the farm.

THE VALUE OF APPLES.

In some of the Eastern States, apples are extensively used for feeding and fattening stock in winter; and, while we are setting out orchards in the west, it is worthy of consideration whether we may not devote a portion of our farms to this express purpose, independent of any idea of selling or eating the fruit ourselves. And this question acquires a greater importance since we have been deprived of potatoes, and are unable to find any root-crop which will supply the deficiency. What every farmer needs during winter is some root or fruit, containing a large amount of water or juice, with positive nutritive qualities, afforded at a low price. Apples, when once planted, cost nothing but the gathering and the interest. They keep well, with slight trouble, during winter; properly planted, they are a very certain crop; the only thing to be decided, therefore, is, are they sufficiently nutritive to render them worth growing for the fattening of stock? Dr. Salisbury, of Albany, N. Y., has studied them with this very point in view; and we abstract the following from his report, which we recommend to the careful study of every farmer:

Per centage of water and dry matter in the

	Swaar.	Tolman Sweeting.	Roxbury Russet.	Rhode Island Greening.
Water	84.75	81.52	81.35	82.85
Dry matter	15.25	18.48	18.65	17.15
Ash	0.26			

Mean inorganic analysis of the composition of five varieties of apples (without carbonic acid.)

Silica, (sand)	1.687
Phosphate of iron	1.593
Phosphoric acid	13.267
Lime, (bones)	4.190
Magnesia	1.669
Potash	37.510
Soda, (common salt)	24.799
Chlorine.....do.	2.169
Sulphuric acid	7.229
Organic matter	5.828

Thus the salts of the apple are, chiefly, potash, soda, bones and plaster—using the common names.

Mean analysis of the organic (or feeding matter) of the apple, compared with the same in the potato; and of 1000 *parts of the "Tolman Sweeting."*

	1000 parts fresh sweeting.	100 lbs. fresh apple.	100 lbs. fresh potato.
Cellular Fibre	33.90	3. 2	5. 8
Glutinous matter, } fattening	3.52	0. 2	0. 2
Fat and wax, } substances			0. 8
Dextrine "	28.96	3. 1	1.27
Sugar and extract "	99.05	8. 3	2.64
Malic acid	2.50	0. 3	
Albumen, } flesh-forming	8.97	1. 4	¼
Casein, } matter	0.89	0.16	0.45
Water	815.20	82.66	79.7
Starch, (fattening)	none	none	9. 9

By comparing the composition of the apple with that of the potato, it will be noticed: 1. That the former contains about 3 per cent. more of water than the latter. 2. That the dextrine and sugar in the apple take the place of the starch, dextrine and sugar in the potato. The above principles are the main bodies in the apple and potato, which go to form fat. In the aggregate amount of fat-producing products, the apple and potato do not materially differ. It would be natural, however, to infer that 50 lbs. of dextrine and sugar would, if taken into the system, be more likely to make a greater quantity of fat in a given time, or at least to make the same amount in a shorter period, than an equal weight of starch, for this reason, that the two former bodies, although nearly the same in composition with the latter, yet are physically further advanced in organization, and hence, probably, approximate nearer the constitution of fat. If this view be taken, then the apple may be regarded equally, if not more rich in fat-producing products than the potato. 3. The apple is richer in nitrogenous compounds than the potato. In albumen the apple is richer than the potato, while in casein the reverse is the case. The aggregate amount of albumen, casein and gluten, in good varieties of the apple, is more than double that of the same bodies in the potato; hence the apple may be regarded as richest in those substances which form muscle, brain, nerve, &c., and build up and sustain the important portions of the body. The difference between sweet and sour apples appears to be, that in the first the fat-producing, and in the other the muscle-forming compounds abound. A *sweet* apple is superior for a fattening or milking animal; the sour apple for one that is working. But, practically, the difference is greater than the analysis would show; the *sweet* apple not only contains a larger amount of unformed fat, but the acid of the sour apple tends to destroy or prevent the deposit of fat in an animal; and, as is well known, sour apples will dry up a milch cow, while sweet ones add to the milk. The money value of apples, compared with potatoes, may be stated somewhat as follows: for fattening, 1000 lbs. of *sweet* apples are worth about 1050 lbs. of potatoes; for feeding to growing or working stock, 1000 lbs. of good sour apples are equivalent to 2000 lbs. of potatoes; and, in practice, should produce the same effect. So that, in the first case, a farmer would only be justified in paying 25 cents a bushel for apples; in the latter, he might pay 50 cents without losing. (By the word "sour" we mean any that are not *positively* "sweet.")

According to Dr. Salisbury's analysis, no two varieties are exactly alike in composition or water, the proportions constantly differing. Thus, in six kinds, he found the water to vary from 79 to 86 per cent.; or, in other words, a person buying 100 lbs. of each, got 7 lbs. more pure water in one lot than another; and, consequently, lost to that extent. It were an interesting investigation which are actually the cheapest—the small and hard, or the overgrown and soft apples. We suspect that there is as much nourishment in three-quarters of a bushel of "Rhode Island Greenings" as in a whole bushel of "Monstrous Pippins."

In conclusion, we call upon such western farmers as expect to remain on their farms, to *set out apples*. Select your orchard carefully for your own use and for sale; and then plant all over your farm, in fence corners and every vacant spot, good sweet apples; and even put them in your fields, at 40 or 50 feet apart, and set four posts round them to prevent cattle and plows hurting them. Every tree that yields, on an annual average, twenty bushels of apples, or forty bushels each alternate year, is worth $100 invested at five per cent.; and by planting orchards, you are leaving a fortune to your posterity, or adding to the value of your farm if you wish to sell it.—*Farmers' Companion, Detroit.*

HAS THE MOON AN ATMOSPHERE?

The astronomical world has been a long time in doubt whether the moon has an atmosphere or not, though the most accredited opinion is that it has not, at least, none of sufficient density to conform to our optical laws and the demands of any animal life known to us. The *New York Courier* announces, on the authority of "one of the most eminent mathematicians and astronomers of the world," that the side of the moon nearest this world is sixteen miles higher than the other. If, therefore, we suppose that the moon has an atmosphere such as ours, it would be of such extreme rarity on the only side exposed to our observation, that for optical effect and animal life it might as well not exist. For mountains upon the earth, none of which are over five miles above the level of the sea, have been ascended to a height at which life could not be supported for any length of time, and still mountains have stretched above the panting traveller. What, then, must be the atmosphere at four times such an elevation. The conclusion seems inevitable that, although the hither side of the moon is uninhabitable for want of an atmosphere, the remote side may be perfectly adapted to animal life. It is at least certain that the mere want of an atmosphere perceptible to us is no longer conclusive as to the uninhabitableness of the planet that rules the night.—*Phil. Ledger*.

HON. MARSHALL P. WILDER.

Under the head of "Mercantile Biography," *Hunt's Merchants' Magazine* for January contains a rapid sketch of the life and various pursuits of the gentleman named above, together with a most life-like portrait. In the *Courier* we find a condensed notice from the article in the Magazine which we subjoin.

"MR. WILDER has been a successful merchant in Boston, for thirty years, and is now of the respectable and well-known firm of Parker, Wilder & Co., 5 Pearl Street. Mr. Wilder is a Director in the Hamilton Bank, the National Insurance Company, the New England Life Insurance Company, and other like institutions—in the first two of which he has held office for more than twenty years. Although trade has been his chief business, and to which he has made all other pursuits subordinate, yet by a rigid economy of time, and a strict adherence to system, he has been enabled to contribute extensively for the promotion of the agriculture and horticulture of our country. At the present time he holds the offices of President of the United States Agricultural Society, of the American Pomological Society, and of the Norfolk Agricultural Society. He is also a member of the State Board of Agriculture, and was eight years President of the Massachusetts Horticultural Society. He has filled other important offices, both civil and military; has been President of the Senate, and member of the Executive Council. Few men have done so much for the cause of rural improvement, and to elevate the profession of the farmer. Well does his biographer remark: "His valuable services in the cause of agriculture and of horticulture have made him extensively known on both sides of the Atlantic, especially to the yeomanry of the United State. His virtues have a practical existence, benefiting and ennobling the whole community; and his name will fill a page in history that will suffer no detriment by the lapse of years, and which will have its interpreter on every hillside and in every valley where rural taste and refinement are found."

We know Col. WILDER well, and have long believed that few men "magnify their office" with more untiring fidelity, or with more practical benefit to the world. His labors, aside from his legitimate pursuits, as a horticulturist, and in fact every kind of culture of the earth, have been constant and earnest, and have promoted the cause in many ways. We have room at present for only a few of the paragraphs of the very interesting biography.

"A more familiar acquaintance with Mr. Wilder's natural endowments and private habits, discloses the manner in which he has been enabled to make so extensive attainments, and to pursue objects so various. Blessed by nature with quick perceptive faculties, and unusual versatility of mind, he acquires with ease and rapidity, and readily applies his acquisitions to his numerous and varied employments. Besides, he is a rigid economist of time, a close adherent to system. Every hour has its appropriate business, which is attended to in its appointed season. In the evening and at early dawn, he is in his well-selected and valuable library, either investigating subjects which the labors and scenes of the past day have suggested, or planning the business of the approaching day.

"In 1840, he was elected President of the Massachusetts Horticultural Society, an office which he filled with honor to himself and that association for eight years. During his administration, it greatly increased in the number of its members, in its resources, usefulness and respectability. It erected its beautiful hall in School Street, at the laying of the corner-stone, and the dedication of which he delivered appropriate speeches. It held two triennial festivals in Faneuil Hall, occasions which congregated the elite of city and country, and which will long be remembered for their luxurious entertainments, and for their soul-stirring speeches from Webster, Everett, and other chief masters of eloquence. When he retired from the office, the society accompanied its resolutions of thanks with a silver service, as a substantial testimonial of its gratitude for his valuable labors.

"In 1851, Mr. Wilder, with others, called a convention of delegates from local agricultural in the State to meet them in the State House, in Boston, and of that body he was chosen president. This, with the preceding action, led to the creation of a permanent Board of Agriculture by the Legislature, sustaining a similar relation to this industrial art as the Board of Education does to the system of common instruction—having its own laws and secretary, and constituting a co-ordinate branch of State government. Of this Board, Mr. Wilder has been a member from the beginning, and has taken a prominent part in all its deliberations and actions. It has a department in the capitol, with a secretary who superintends the farm connected with the State Reform

School in Westborough, exerts a salutary and powerful influence upon the agriculture of the Commonwealth, and promises to do still more for its advancement."

EXTRACTS AND REPLIES.

A FINE APPLE.

I send you a sample of *sweet apples* raised by me, for a name. Our pomologists do not know the fruit, and I think it is too good to be nameless. It resembles in a good degree, Downing's "Ladies' Sweeting," but is not identical. It has long been a desideratum with us to obtain a first-rate winter sweeting, and this is the best we have found. It is a great bearer and keeps well.

Yours truly, GEO. A. CHAMBERLAIN.

Worcester, *Dec.*, 1854.

REMARKS.—This apple, like the Ladies' Sweeting, has a pleasant perfume, and fine, sprightly flavor. The skin is a beautiful red, but has not the yellowish-gray dots of the former. We submitted the specimens sent, to two or three good judges, who could not recognize it, and while looking at them a gentleman on his way to the Horticultural Rooms brought in a basket of apples for our examination, which proved identical with yours. They were then presented at the Rooms, but could not be named.

The apple is not only attractive in its appearance, but is of fine texture and flavor, and with the other good qualities given it by Mr. Chamberlain, will prove a valuable variety.

—

COWS GNAWING BONES.

I have a cow, the moment she is turned out is in search of a bone, and if she finds one, will stand and chew it for hours; a year or two ago, I read something about it, but I have forgotten what it was. Will you or some of your correspondents please inform me. WM. DURANT.

Leominster, 1855.

REMARKS.—By reference to former volumes of the Monthly *Farmer*, you will find the cause of this pretty fully discussed. Pound a few bones as finely as possible, and feed to your cow; or purchase a bag of bone-dust, and feed a little of that to her, and when she is turned to pasture she will give her attention to the grass rather than to the "old bone." Bone-dust is sold at the agricultural warehouses, in bags, for 75 cents for about 25 lbs. of the dust. Every farmer should have it.

—

DEAR SIR:—The information contained in the items below, is so curious, that I cut the slips from an English newspaper, given to me to read to-day, by an Englishman who works on my farm, and send them to you, supposing you may like to put them in a corner of your paper. Wishing you a happy new year, your friend,

Washington, D. C., 1855. T. B.

"Around Aylesbury the annual return for ducks is £40,000. One man has had 1000 to 2000 ducks, and paid £50 at a time for barley meal."

"The Agricultural Society of Clermont, in the department of the Oise, has recommended the use of that agricultural nuisance, couch-grass, as a substitute for malt in the making of beer."

—

THE BARLEY CROP.

C. S., South Hawley, Franklin County, urges upon the farmer the importance of giving more attention to the barley crop; says that barley flour makes good bread, and that it may take the place of wheat flour with advantage to health as well as the purse, when the latter is selling at $12 per barrel.

—

CONCRETE HOUSES.

We have already referred, at considerable length, to the work on Concrete Houses.

—

CHEAP FENCES.

MR. EDITOR:—I wish the writer on cheap fence would be more explicit; state how long the stakes must be soaked, and how many can be prepared in a certain quantity of the preparation. ALPHEUS FLETCHER.

Shelburn, 1855.

—

YOUNG CATTLE'S HORNS.

I would inquire of you, or some of the numerous readers of the *New England Farmer*, if the *shape* of steers, or any young cattle's horns, can be altered, and the best time and process of doing it. S. F. ALGER.

Winchendon, *Jan.* 8, 1855.

REMARKS.—Will some of our experienced friends reply.

—

From N. P. M., *Somerville*.—The apple you sent in, if now in its season, would be hardly worthy of cultivation among the excellent varieties we already possess. The flesh is soft and dry, and though not remarkably acid; yet with a vinegar tinge, that is not agreeable. The *Jewett's Fine Red* are very handsome.

THE SKILFUL HOUSEWIFE'S BOOK.—This is another of SAXTON'S books, containing 659 Receipts, pertaining to Household Duties, the Care of Health, Gardening, Flowers, Birds, Education of Children, &c. The work was compiled by Mrs. L. G. ABELL, and as the Publisher's preface says, "is the production of a highly-gifted and disciplined mind," and "teaches in the broadest sense, the *Science of Life*." It will be found exceedingly convenient to every housewife who does not know everything herself, if there is any such.

MEXICAN GUANO.—The reader is referred to an advertisement in another column relating to "Mexican Phosphatic Guano."

HINTS FOR TEACHERS.

The main and almost undivided attention of teachers should be given to the business of giving instruction while they are engaged in the employment. They cannot do a day's work, nor half a day's work in some manual labor or mercantile affairs, and do a day's work in the school-room at the same time. They may work a little when out of school for exercise, and to allow the mind to unbend, after the mental labor and perplexities of the day are over. One-half and perhaps two-thirds of the teachers need to spend several hours when out of school, in looking over the lessons that are next to come up in the classes, that they may have everything familiar, and bring up questions not in the books, that will unfold the various principles of the sciences.

It is not consistent for teachers to spend their evenings with loafers at shops and in bar-rooms. We have known a few to do so, and even to take a glass of liquor. In the same connection it may be said that while social visits may be made and with parties that make them, yet those that are for mere amusement should be avoided, if they would maintain proper dignity. Allusion is here made to those in which there are what are called "plays," and also the amusement of dancing. Of this last we do not think well at any time, but especially it should be avoided while teaching or attending school. An evening spent in the dancing hall, with the heat and fatigue of the mind, renders one altogether unfit for much effort with books the ensuing day. And if teachers dance with their pupils, they let themselves down so as to lose the respect of the wise and discreet.

Some who attend school may carry things with them that do not belong there. Among these may be named pocket-knives for the purpose of swapping with their companions. Newspapers and pamphlets of light reading. Books that are tales of fiction. A gun to hunt in the woods at noon or after school in the afternoon; a pack of cards for gambling. When these or anything of the kind are brought to the school-house, teachers should see that they are removed at once. If those that have them show the least obstinacy they must be disciplined, and if necessary the superintending committee must be called on to remove them from the school.

The proper business of the school is important. There is a prize to be gained more valuable than a mine of silver or gold. There is a treasure to be secured that may be of infinite worth here and hereafter. Let nothing be brought in the way of attaining the prize and the treasure.—*Exeter News-Letter*.

BEAUTIFUL INCIDENT.

[A correspondent of the Preston (England) *Chronicle* gives the following anecdote:]

"A good while ago a boy named Charlie had a large dog which was very fond of the water, and in hot weather he used to swim across the river near which the boy lived. One day the thought struck him that it would be fine fun to make the dog carry him across the river, so he tied a string to the dog's collar, and ran down with him to the water's edge, where he took off all his clothes; and, then, holding hard by the dog's neck and the bit of string, he went into the water, and the dog pulled him across. After playing about on the other side some time, they returned, as they came; but when Charlie looked for his clothes, he could find nothing but his shoes. The wind had blown all the rest into the water. The dog saw what had happened, and making his little master let go the string, by making believe to bite him, he dashed into the river, and brought out first his coat and then all the rest in succession. Charlie dressed and went home in his wet clothes, and told his mother what fun he and the dog had had. His mother told him that he did very wrong in going across the river as he had done, and that he should thank God for making the dog take him over and back again safely; for if the dog had made him let go in the river he would most likely have been drowned. Little Charlie said, 'Shall I thank God now, mamma?' and then he kneeled at his mother's knee and thanked God; then, getting up again, he threw his arm round his dog's neck, saying, 'I thank you, too, dear doggie, for not letting me go.' Little Charlie is now Admiral Sir Charles Napier."

Milk in Bread.—I have more objections than one to milk in bread, but the most serious is, that persons of advanced age, who are in the daily use of milk-made bread, will be expected to suffer from an over supply of osseous or bony matter, and particularly if their kidneys be affected. Bread should always be made with water, and when so made it is suitable for the aged and the young, the sick and the well. And as for sour milk, a microscopic view would, I presume, present additional arguments against its use.—*Water Cure Journal.*

What a Mowing-Machine can do.—The *Springfield Republican* states that Captain Samuel Parsons, of Northampton, cut, made, and put into his barns, sixty-two loads of hay during the first week in July, commencing on the 3d, besides mowing for others to the amount of $40 in the same time. The whole was accomplished with what would be equivalent to the labor of one man for thirty-eight days. He mowed in one day, and in less than nine hours, eleven acres, producing from two to two and a half tons per acre.

Thaxter's Rotary Calendar.—A neat, convenient and useful article for the library-table or store-desk, has recently appeared for sale at the stationers in this city, which combines a wafer-stand, pen-rack and rotary calendar, which gives the month and the date of each day of the week. They are neatly japanned and bronzed, and make a tasteful ornament. They are manufactured and sold at No. 78 Commercial Street. We would recommend them to our literary and mercantile friends as one of the most useful inventions of the times.

☞ Readers will please notice the advertisement of Hiram Blackmer, in this number. Macomber's Hay-cutter possesses qualities which are claimed by no other machine, and purchasers will do well to examine it.

We select the following from a large number of similar notices with which we have been favored from time to time by our cotemporaries:

We improve this opportunity to call the attention of our agricultural friends to the New England Farmer, published in Boston, as one of the most valuable publications of the kind in the United States. There are few farmers so well informed that they might not derive advantages from its perusal, a hundred fold beyond its cost. It is published monthly, each number containing 48 large octavo pages, at only $1.00 a year.—[Hampshire Gazette, Mass.

New England Farmer.—The August number, as usual, is filled with matter of great importance to the farmer. There are no better works reach the home of the agriculturist than this. The articles are timely, able, and instructive—and its illustrations are fine.—[Telegraph, Penn.

New England Farmer.—The New England Farmer is a first rate monthly, devoted to agriculture, horticulture, and their kindred arts and sciences, which we unhesitatingly recommend to our farmers and reading community. Each number contains about forty pages, and the last two we have read with pleasure, finding them filled with practical, valuable and instructive articles. Several who have examined the numbers we have received were much pleased with them.—[Monmouth Inquirer, N. J.

New England Farmer.—This is one of the best agricultural papers the farmer can find. It is well adapted to the wants of the farmers in New England, and should have an extensive circulation among them.—[Greenfield Republican, Mass.

☞ We omitted last week to credit the article headed "Farm Work for September," as we should have done, to the best Agricultural paper in New England, the N. E. Farmer. It was so good we supposed all would know where it came from.—[Amherst Cabinet, N. H.

The New England Farmer, a monthly devoted exclusively to Agriculture and kindred subjects, making a fine volume of 576 pages a year. The Farmer is edited by Simon Brown, assisted by Frederick Holbrook and Henry F. French, published by Joel Nourse, Quincy Hall, Boston, at $1.00 a year in advance. The Farmer continues to maintain its high and well-earned reputation.—[Ohio Farmer.

New England Farmer.—We advise our agricultural friends who are in want of a work devoted exclusively to their interests, without being mixed up with the notions of old fogies on politics, to subscribe for the New England Farmer, which is published in a pamphlet form, monthly, at $1.00 per annum. Joel Nourse, publisher, Quincy Hall, Boston.—[Plymouth Rock, Mass.

☞ The excellent article on our last page for "Farmers' Work in March," is from the New England Farmer, one of the most valuable and sterling papers to be found in this country, always filled with valuable information, and a paper from which we can always clip much interesting matter.—[Woburn Journal, Mass.

New England Farmer.—The April number of this useful agricultural work has been received, and merits the praises that have been so universally bestowed upon it. It is, in fact, the cheapest agricultural work in the Union. It is published monthly at Boston on the first of each month, in book form—devoted, exclusively, to agriculture, horticulture, and their kindred arts and sciences. Each number contains 48 pages, making at the end of the year, a neat volume of 576 octavo pages. Terms $1 per annum in advance. All orders and letters should be addressed to Joel Nourse, Quincy Hall, South Market Street, Boston, Mass.—[Norristown Register, Penn.

☞ The New England Farmer, for March, has come to hand in good season and this number fully sustains the excellence of those preceding it. It presents a valuable index for the farmer's use, besides a great variety of valuable miscellaneous reading, which cannot fail to interest those pursuing other vocations than the tilling of the soil.—[Statesman, Vt.

☞ The New England Farmer, from the columns of which our readers have seen many good articles in the Mail, is one of the best agricultural papers, for the common farmer, that comes to our table. It has recently been much improved, and in addition to the weekly is now issued monthly, at $1 a year. Mr. Simon Brown, the editor, successor to the late Mr. Cole, seems to have caught the full idea of the actual wants of the farmer.—[Eastern Mail, Maine.

☞ In the paper of this week will be found a finely written article upon "The Farm in November," which is the leading article of the November number of the New England Farmer, which has just come to hand.

Those of our farmers who do not subscribe for this work, we recommend to do so. It is among the best monthly publications going.—[Suffolk Gazette, N. Y.

New England Farmer.—This is another good agricultural paper, and we take pleasure in recommending it to the public. It is devoted to agriculture, horticulture, and their kindred arts and sciences, embellished with numerous engravings. The matter is mostly original, and from the best agricultural writers of the day.—[Expositor, Mich.

New England Farmer.—This excellent agricultural periodical, under the editorial charge of Simon Brown, Esq., assisted by Frederick Holbrook and Henry F. French, is a work which recommends itself to the attention of every farmer. This monthly cannot fail of a good support under its present management, and we hope it will meet with the success it so much deserves.—[Dover Gazette, N. H.

New England Farmer.—This valuable weekly paper, chiefly devoted, as its name indicates, to practical farming intelligence, has no superior in the excellence of its agricultural essays, and in the general tone of its news and miscellaneous departments. The two selections on our outside of last week, under the caption of "Farm Work for May," and the "Garden," should have been credited to the New England Farmer, and are fair samples of the ability and good taste exhibited in the management of the paper. It is edited by Simon Brown, Esq., formerly of Newport, in this State. Many of its best correspondents are also from New Hampshire.—[Manchester (N. H.) Democrat.

New England Farmer.—We are happy to renew our salutations of cordial brotherhood with this excellent agricultural and miscellaneous newspaper, with its first issue for the new year. And there is no paper out of the State that furnishes more reliable and valuable information, and we are always happy to see it on the farmer's table with our own sheet. The New England Farmer is edited by Simon Brown, Esq., with Hon. Frederick Holbrook and Henry F. French, Esq., as associates, (a strong team,) and is published by Joel Nourse, Boston, at $2 00 per annum.—[Granite Farmer, N. H.

☞ We exchange with a goodly number of Agricultural papers, most of them of established merit and usefulness; but among them all we peruse the columns of none with more interest and comfort than those of the New England Farmer. There is a good deal of old-fashioned home fire-side feeling infused into its language, which reminds us of the capacious hearth and glowing winter fires of long ago, while in the elements of progression and practical usefulness it ranks among the first journals in the land.—[Carlisle (Pa.) Herald.

New England Farmer.—An Independent Journal, devoted to Agriculture and General Intelligence. Terms $2 per annum in advance—Joel Nourse proprietor, Boston, Mass.

This is the best paper for a farmer we have on our exchange list, and most cordially do we recommend it. To the intelligent, enterprising young man, just beginning the world, this paper may be the means of saving fifty dollars a year, independent of the pleasure derived from reading it. To such we say, don't fail to send your two dollars for the New England Farmer.—[Ellsworth (Me.) Herald.

☞ Every farmer in Vermont, besides patronizing the papers of his own State and vicinity, should take the New England Farmer. We have known it from its "youth up," and know it to be a first-rate paper; always filled with choice and important matter for the man who would cultivate his farm and his mind at one and the same time, and do it in the best manner. We shall treat our readers to many articles from its columns.—[Vermont Watchman and Journal.

New England Farmer.—We consider this broad and beautiful sheet among the best, if not the very best family journal in the United States. The bold and manly tone evinced by its conductors upon all questions of State and National polity, renders its opinions worth adopting, whilst as a newspaper, its columns afford as abundant a supply as is needed by any family. In the immediate vicinity of its publication, its markets and local news must be particularly valuable, but the world-wide importance of its agricultural statistics is what will specially recommend it to our readers. The price is only $2 per annum, which, for a paper of its size, style of print, and manner of getting up, is exceedingly low.—[Louisville (Ky.) New Era.

☞ The New England Farmer, we would remind our readers, is an excellent agricultural paper, and now is just about the time to make the editor a "New Year's Gift," of renewed subscriptions and some new subscribers.—[Greenfield (Mass.) Republic.

☞ We know of no better agricultural paper in the Union, than the New England Farmer, published at Boston. It should be in the hands of every farmer who would know *how* to farm.—[Banner of the Union, Phila.

New England Farmer.—We call attention to the advertisement of the New England Farmer. This is probably the best weekly agricultural paper in New England. Its editor, Simon Brown, Esq., is a practical farmer, and its other writers are men who write from practical knowledge of the great branch of industry to which the paper is mainly devoted. Those of our people who wish for an agricultural paper published out of the State, will not find a better one.—[Concord (N. H.) Patriot.

New England Farmer.—This is one of the best agricultural journals in this country, and should be in the hands of every person engaged or interested in any one of the various branches of agriculture.—[Exeter (N. H.) News-Letter.

PROSPECTUS

OF THE

NEW ENGLAND FARMER,

For 1855.

The present number commences the Seventh Volume of the NEW ENGLAND FARMER MONTHLY, and it is the intention of the publisher that it shall exceed the former volumes in the value and variety of its contents and the beauty of its illustrations.

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NEW ENGLAND FARMER:

A MONTHLY

AGRICULTURAL JOURNAL,

FOR THE FARM AND GARDEN.

SIMON BROWN, Editor.

FREDERIC HOLBROOK, OF VERMONT, HENRY F. FRENCH, OF NEW HAMPSHIRE,

ASSOCIATE EDITORS.

> Without encouragement of AGRICULTURE, and thereby increasing the number of its people, any country, however blessed by nature, must continue poor.—SWIFT.

Vol. VII. MARCH, 1855. No. 3.

BOSTON:
JOEL NOURSE, PUBLISHER,
QUINCY HALL.

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Postage.—The Postage on the Monthly Farmer to Subscribers, is now twelve cents a year, to be paid quarterly or yearly, in advance, at the office where it is received.

DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

VOL. VII. BOSTON, MARCH, 1855. NO. 3.

JOEL NOURSE, Proprietor,
Office....Quincy Hall.

SIMON BROWN, EDITOR.

FRED'K HOLBROOK, } Associate
HENRY F. FRENCH, } Editors.

CALENDAR FOR MARCH.

The weather now begins to be warmer, but we have sometimes very cold, frosty days, and the bare trees and flowerless fields still appear winterly, while hasty showers of snow fall and cover the dry herbage or flocks who have been allowed to ramble in the pastures.

MARCH is a much-abused month. People grumble, and vent their spleen upon it, as though its flurries of snow, its roaring winds, its sharp frosts and swollen streams, had nothing else to do but plague them,—when, poor souls, March would blow and snow, and freeze and thaw, just as she pleased, if there were no such grumblers in existence! March has *her* duties to perform, as well as June or September, and we could as well spare one as either of the others; and though, like the frolics of the bear with her cubs, they may seem to lack something of gentleness and affection, they are kindly intended, and will answer their purpose very well, after all. So you that sit over the fires, and only peep through the panes at March, had better seek comfort in studying out her ways, and thus make her the shortest and most agreeable month in the year. And you need not escape to the city to do this, for there are even now rural sights and rural sounds, which have much to charm the eye and please the ear; and what are glittering shops, and passing crowds, and dusty streets, and gloomy walls, to these? And then the winds, notwithstanding all we have said against them, are "far from being virtueless; for they come careering over the fields, and roads, and pathways, and while they dry up the damps that the thaws had let loose, and the previous frosts had prevented from sinking into the earth, 'pipe to the spirit ditties' the words of which tell tales of the forthcoming flowers."

The sap is alive in the seemingly sleeping trunks that everywhere surround us, and is beginning to mount slowly to its destination; and the embryo blooms are almost visibly struggling towards light and life, beneath their rough, unpromising outer coats—unpromising to the idle, the unthinking, and the inobservant; but to the eye that "can see Othello's visage in his mind, bright and beautiful, in virtue of the brightness and the beauty that they cover, but not conceal." Some of the birds, too, have come, and now and then a crocus, yellow, blue, striped, or white, peeps up in the clear sunshine, just to tell us what we may expect by and by.

March is not friendly to the bronchitis or lumbago,—but to the saturated fields, the trees, and indeed all the farmer's interests. We cannot spare it yet, and those who do not like it must find some engrossing occupation in-doors, until it blows itself out and makes way for its scarcely less fickle sister, April.

> "Now shifting gales with milder influence blow,
> Cloud o'er the skies, and melt the falling snow;
> The softened earth with fertile moisture teems,
> And, freed from icy bonds, down rush the swelling streams."

Now let us see what some of the particular things are to be done in March—and first, the

Garden Arrangements.—No better thing can be done in March than to determine what garden work you will do in April and May. Make all the arrangements for beds, for the various seeds to be sown, and for the flowers, shrubs, currants, gooseberries, strawberries, trees, &c. This arrangement requires a consideration which you cannot afford to give it when the season has approached for the *work to be done*, and the sun has warmed the earth for the reception of the seed. Finish this during the evenings or stormy days in March.

Manures.—While the surface is frozen and the teams can go over the fields without cutting in, it is well to haul out the bulk of the manure and place it in compact piles near where it will be wanted in planting time. This enables us to give more time to plowing, sowing and transplanting.

Top-Dressing.—Our inquiries on this matter have been extended to many of the best farmers of New England, and from experience and what we gather from them, we cannot recommend this mode of manuring, only in cases of reclaimed low ground, too wet for the plow, but which will yield good crops of hay by an occasional dressing. If top-dressing is applied to high lands at all, it should be late in autumn, so that the rains or melting snows shall thoroughly wash it into the soil.

Farm Tools.—Are the plows in order? Is that lost hinge on the harrow replaced? Are the yokes, chains, carts, collars, hames, and harnesses sound and whole, so that a bright day shall not be lost in repairing them in planting time?

Clover Seed.—Sow during the month, five or six pounds to the acre—if on the snow you will be likely to get it even.

Firewood—Split fine and housed at once, will be best, if a current of air passes through it after being under cover.

Live Stock.—Working oxen that are well-tended now, will be far more serviceable for the spring-work, than those that are neglected; so if good butter cows are desired in the summer, they must be turned to pasture in thrifty condition.

Maple Sugar.—Many of our readers make this delicious article, and understand the *modus operandi* better than we do; but that is no good reason why we should not remind them of the approaching season, and drop a hint that they may not forget *us* during their harvest!

Pruning Apple Trees.—Again we caution the cultivator against pruning apple trees in March or April—they are the two months the most unsuitable of the whole twelve.

The sun now runs high—the soil will soon be warm, and invite us again to the delightful labors of spring, and especially the Garden; for we believe with Bacon, that "God Almighty first planted a garden; that it is the purest of human pleasures; it is the greatest refreshment to the spirits of man, without which buildings and palaces are but gross handyworks." Be resolved, then, to commence a garden with some system, if you have not already.

A Dishonest Dog.—The *Fall River Monitor* relates the following dog story—showing that remarkable brutes, as well as wonderful men, sometimes apply their superior talents to the worst of purposes:

"A family residing in the southern part of the city, are the owners of a large and faithful watch dog; the little daughter, being very anxious to possess a set of furs, the other day commenced teasing her mother very earnestly to procure her some. While doing so, the sagacious dog stood near, eyeing them very intently, apparently understanding the meaning of the conversation. Watching an opportunity, he left the house soon after, and made his way directly to one of our fur stores, and seizing one of these articles, which was displayed at the door for sale, he made off with it. He directed his course homeward, and being pursued, the fur was taken from him just as he reached the gate of his master's residence."

For the New England Farmer.

CULTURE OF WILLOWS FOR OSIERS.

Mr. Editor:—In the last number of the *Farmer*, a communication from a Hingham correspondent on the subject of cultivation of basket willow contains statements, which, I fear, may mislead some of those who are trying to gather information on the subject.

Your correspondent says he cut his willow in November, and the impression naturally conveyed is that this is the proper time to cut them for basket work; but, as the bark adheres firmly at that time, he must have had some other purposes in view. He also tells your readers that his product was at the rate of nearly nine tons to the acre, and a person who read the communication carelessly, might suppose that something like this weight may be depended on as a crop when ready for the market, but in the account given, the osiers must have been weighed in a green state and with the bark on them, as the growth of an acre which produces three tons of osiers in a fit state for the market (that is, peeled, dried and tied in small bundles) is considered very satisfactory, and is more than an average crop. With no more labor in the cultivation than running a cultivator between the rows, two tons to two and a half tons can be raised, and it is then very profitable.

The present price of French willow is one hundred and twenty dollars per ton, and the Belgian willow, which is sold by the bundle, would, if weighed, cost one hundred and thirty-five dollars per ton. Though large quantities are raised in England, (the estates of the Duke of Bedford alone, having several hundreds of acres) it is mostly consumed at home. The price of French willow has been as high as one hundred and sixty dollars per ton, and the Belgian still higher, within the last eight months, but the present is about an average rate.

There has been none imported into this city for about two years, the trade being kept in the hands of a few importers in New York, where the supply for the manufacturers in Boston and vicinity has to be obtained. As there is no separate account kept at the custom houses of the quantity of osiers imported annually, it is difficult to get at the amount with any degree of accuracy, but it is variously stated at one and a half or two millions of dollars.

I hope some of our careful farmers will give the matter a fair trial, as we ought not to send money to Europe to pay for what we can profitably raise at home, and we have in this a special encouragement in the fact of the existing duty of twenty per cent. to protect the grower.

Respectfully yours, W.

For the New England Farmer.

WHY FARMING IS DESPISED.

Mr. Editor :—Of all occupations, that of farming, if not the most lucrative, is certainly the most natural, and the most conducive to health. The farmer therefore, ought to be, and *is*, as a general thing, the happiest of men ; but, whenever this is not the case, the fault is not in his business, but in the farmer himself. Notwithstanding these two great considerations—health and happiness—there are many, *very* many, throughout the community, who look upon farming with a sort of contempt—fit only to engage the attention of the lowest class of people. Especially is this true of the younger portion of the community—young men and young women.

Now my object in writing this article is to mention some things which appear to be the reasons why this *wrong* state of feeling exists. If they are not the *true* reasons, perhaps they may be the means of calling forth those that *are* true, from you, or some of the readers of your valuable paper.

1. There is too great a desire to become rich—to gain riches rapidly, and with as little labor as possible. Now it is known that the farming business is not very favorable to those desires, especially the last mentioned. It is true that there are some who have by industry, knowledge, and the strictist economy, managed to gain an independence, simply by farming ; but these are exceptions to the general rule—there being but few farmers, comparatively, who have become rich by that means and no other. And so, many, thinking to obtain riches fast, and much, (but how often are their hopes blasted !) flock to the counting-room, the office of the lawyer and doctor, become speculators, or go to the golden fields of California.

2. There is a seemingly natural, innate (?) repugnance—common to almost every individual—to daily manual labor. [All the result of education.—Ed.] Now this repugnance must be overcome by all who are obliged to work for a living, or else it will ever be a source of unhappiness to them. Many rather than do this, and thinking the farmer has the hardest of work to perform, (which is a mistaken notion) engage in some other business, in which they imagine they can enjoy more ease and exemption from labor. And this object is sometimes attained ; but how frequently at the expense of their health, or happiness, or both, for they are very intimately connected. It would not be desirable, nor is it possible for all to be farmers ; but it seems to me that there are many speculators, merchants and professors, who would have been better off themselves, and a greater blessing upon the world, if they had become, or remained, farmers.

3. It is well known what an influence young ladies have upon the thoughts, actions, and destinies of young men. What *they* think is honorable or desirable, young men are inclined to believe *is* so, and vice versa. We will say to the lasting praise of the gentler sex, that their influence is nearly always upon the right side, but not invariably so. Many young ladies have somehow got the notion into their heads that labor, and *especially* house and farm labor, is degrading ; and to put their notion into practice, they neglect to learn that which above all things a woman should learn—the art of housekeeping. There are, it is true, many exceptions to this rule, but the exception should *be* the rule in this case. Girls either stay at home,—if their parents are able to support them—dress finely, and sigh over sickly novels until they are married, or, as soon as they are old enough, go to some factory or boarding-school, and, after a time, come back and *affect* to despise everybody except those who have plenty of money and but little to do. Young men are aware of this, and, to please or win their sweethearts, seek some employment which they (the sweethearts) think is not degrading. I believe it would not be far from the truth to say, that this is as strong, if nôt a stronger reason than any other why so many young men turn to other pursuits than farming.

4. Many are ambitious to have their names enrolled upon the book of fame—to obtain the honors and applause of men ; and leaving, or spurning the humble occupation of the farmer, fix their attention upon some pursuit which they think is better calculated to satisfy their desires than farming. But, ambition, although a motive which has prompted men to perform many great and noble actions, yet is a feeling or desire which is seldom or never satisfied. The ambitious man always sees some seeming good beyond his reach which he imagines it is necessary to his happiness to obtain ; he cannot, therefore, be a truly happy and contented man.

5. Most young men are fond of excitement, adventure, and of seeing and knowing what is going on in the world *personally*. The farmer's life, to them, appears dull and insipid—they must be where there is more noise and bustle than can be heard and seen upon the farm. And to gratify these desires, many of them go to the large towns and cities, the railroads, the pedlar's cart, and some to the lone blue sea.

6. Some farmers make such wretched work of farming, and take so little pains to instruct their sons in this most useful art, that it is not surprising they loath it, and seek other employments.

If these are not all, they are (if I rightly read human nature,) the principal reasons why farming is despised.

A few facts in favor of farming, and I have done. Everybody knows that the farmer must work hard, and manage his affairs very shrewdly, to gain *much* besides a good living for himself and family ; he must be content to acquire property slowly, but *surely*. But he has these advantages over many of a different pursuit :—if he is a *true* farmer, there is little danger of his becoming bankrupt, and thus robbing his fellow-men of their just dues, as some do ; he has health ; is comparatively free from distressing cares, and bitter disappointments ; he is surrounded by the beautiful works of God in nature—the trees, grass and flowers, the singing of birds, the pure air of heaven, the changing seasons, and all the sublime and glorious scenes which nature sometimes displays to her wondering children. He has time to observe, think, read and reflect ; and, if he is a man of taste, can generally find means to gratify it—especially a taste for the beauties of nature. He enjoys a sort of independence which other men do not. He does not have to wait until the best years of his life are spent in acquiring a fortune, before he begins to enjoy himself, but enjoys the good of his labor as he goes along. Let us hear what Sir Humphrey Davy, the great chemist of London, says of farming and the farmer :—

" Agriculture, to which we owe our means of subsistence, is an art intimately connected with chemical science ; for although the common soil of the earth will produce vegetable food, yet it can only be made to produce it in the greatest quantity, and of the best quality, by methods of cultivation dependent on scientific principles.

" The knowledge of the composition of soils, of the food of vegetables, of the mode in which their products must be treated, so as to become fit for the nourishment of animals, is essential to the cultivation of land ; and his exertions are profitable and useful to society, in proportion as he is more of a chemical professor. Since, indeed, this truth has been understood, and since the importance of agriculture has been generally felt, the character of the agriculturist has become more dignified, and more refined ; no longer a mere machine of labor, he has learned to think and to reason. He is aware of his usefulness to his fellow-man, and he has become at once the friend of Nature and the friend of society."

There is—and it is a good omen for the future prosperity of our country—an increasing interest throughout our land, in the science of agriculture. Wonderful improvements have been made upon almost every farming implement, and some entirely new ones invented ; so that the *manual* part of the labor upon the farm is much easier than formerly. And what is of more importance, *kindred sciences* are lending invaluable aid to the farmer.

All true lovers of their country cannot but hope that this interest, of which I have spoken, will continue to increase until the farmer shall stand as high in the estimation of *all*,—old and young—as the merchant, physician, lawyer, or *any* of the learned professions.

Yours truly, S. L. WHITE.

Groton, *Jan*. 4, 1855.

CORN AND COB MEAL.

The grinding of corn and cobs together, which we have heard ridiculed very much by some, formerly, has now become an every day occurrence, farmers being convinced that the cob contains too much nutriment to be thrown away.

Our experience heretofore in regard to its use is this : for those animals that chew the cud it is a most excellent provender, but for those that do not it is not so valuable. Thus, for oxen, cows and sheep, it is a capital feed. These animals, after what they swallow in the *warm* vat, called the first stomach or paunch, have the faculty of throwing it up again in small portions called cud, and chewing it over in a leisurely manner until it is ground very fine, and then after being thus thoroughly mingled with the saliva, swallowing it again into another stomach, where all its nutritive matter is extracted by the proper organs created for that purpose.

The horse and the hog having no such organs to re-chew, do not derive so much benefit from the ground cob, as the animals above named.

Hens derive more benefit from corn and cob meal, than they do from corn meal alone. In fowls of this class there is an apparatus analogous to animals that chew the cud.

First they take dry food into their crops, here it becomes soaked as if it were in a warm vat, from this it passes into the gizzard, which, furnished with gravel stones, acts the part of grinding fine, by aid of the strong muscles of that organ, whatever passes into it. Here, the particles of the cob meal, thoroughly pulverized and mingled with the gastric juices, become dissolved, and form nutrition for the body.

We do not mean to say that corn and cob meal is not good provender for horses and hogs, but that they do not derive so much benefit from pound for pound, or bushel for bushel, as oxen, cows, &c., do.—*Maine Farmer*.

A SHORT LECTURE ON EXTRAVAGANCE.

We spoke (in a former article) of the extravagance of farmers, as well as others of the prosperous classes, in the structure and furniture of their houses. We know of no class in the community, who better deserve all the real comforts of life, than those who fairly win their support from the soil, and we should be glad to see them surrounded, not only with the necessaries, but many of the luxuries of life. But every man's purse has a bottom to it, and the great problem is, how to expend what we can devote to our own comfort, and that of our families, so as to get the best return for our money. Many a man can advise his neighbor how to live, who cannot see his own way clear, or if he does see it, cannot follow it. We have advised, and our advice is especially adapted to young men, to live in a small house plainly furnished, because the small house costs less than a large one, and requires less furniture, and less labor to keep it in order, and because it is truly respectable, as well as comfortable, to live within your means. We might have added another consideration—that aside from the labor of keeping the house itself in order, the household work, generally, is much more easily done in a small, than a large house.

A lady now residing in a city, in a large house with three servants, recently remarked, when speaking on this subject, that when she lived in New Hampshire, in a one-story cottage, with but two rooms and an attic, and did all her own work, including the cooking for her family, and ate in the kitchen, her task was less wearisome than that of merely directing her present establishment. No doubt this is literally true, and no doubt there are many families in every village in Massachusetts and New Hampshiee, whose in-door labor is increased nearly two-fold, by endeavoring to keep up a style beyond their means.

But while we would discourage this foolish sacrifice to public opinion or fashion, we would urge upon our friends the importance of increasing the *conveniences* of the household. We know of a farm—and perhaps we may as well mention it by name—where all the water, for years, probably a half century, used for washing, was hauled from a spring in a cask, with a yoke of oxen and a drag, a distance of about a quarter of a mile. We allude to the beautiful residence of Joseph L. Cilley, Esq., of Exeter, N. H., formerly that of Hon. Jeremiah Smith. Rain water cisterns were tried, but the buildings from which the water came, were surrounded by trees, the leaves of which filled up the conductors and spoiled the water. So for years, every Monday the team and man were employed to haul the supply from the spring, up a troublesome hill. But the present proprietor taking advantage of one of the most interesting inventions of modern times, has erected a small dam, so as to raise a little pond by the same old spring, put in a hydraulic ram, which is worth, for the purpose, more than all the oxen in the county. This little machine, which costs but a trifling sum in itself, besides the pipes which convey the water, throws a portion of the water, by its own action, to any desired height, keeping up an unceasing motion, like the pulsation of the human heart, day and night, until the machine is worn out. The water is thus thrown into the kitchen of Mr. Cilley's house, where a large reservoir receives it,from which the waste water is conducted under ground, to supply a large stock of cattle in the barn-yard. There are many places where water may thus be brought to our buildings, many where it may be brought in common aqueducts, or pumped up by windmills, both for ordinary uses, and for irrigation, in seasons of drought. We hardly know of any particular in which true comfort and economy may better be promoted, than in availing ourselves of modern inventions in raising and conducting water.

While we would discourage expenditure for that which merely gratifies a taste for display, we would encourage a liberal outlay for such conveniences as lessen human toil. It has been well and beautifully said, that "They are the heroes of the race, who abridge the time of human toil, and multiply its results." Their place is high above those who command armies. They are the true benefactors. This is especially true of New England. We have here no servants, and want no servile class. Let us adapt our habits of life to the republican theory of society, and so arrange our houses and affairs, that all our labor may be seasonably performed, independent, as far as practicable, of assistance outside our own families. The family which can perform its own labor, without and within, unaided by others, has reached a point of independence, which they can never attain, who depend on hired help.

Many attempt this independence, but in the wrong way. Having commenced in a large or inconvenient house, they attempt to perform all the labor, which is beyond their strength, and the wife and mother is soon prostrate by ill-health, pain, over-exertion, and care. Adapt your load to the strength of the team, at the start, and do not try to drag a double freight through life, especially of useless lumber. There are a thousand little conveniences, of infinite importance in every dwelling, which are too often neglected, because the money has all been spent for the house and parlor furniture. Among those, most prominent, perhaps, are the appliances for warming, and supplying with water. Then follow convenient milk rooms and store rooms, bathing-rooms, cooking apparatus, washing, drying, and ironing places and implements, and the hundred little articles of kitchen utensils, which your wife will enumerate to you, when you are ready to procure them.

A New England farm should be a little republic of itself, where every citizen should take his share of the burden, and everything be arranged so that intelligent, educated labor should be able to manifest its superiority over mere brute force, and where display and fashion should yield at once, to the demands of rational beings, for some leisure for intellectual culture.

HOW RUSSIA TREATS HER BEST GENERALS.

Mouraivieff commenced his career as a lieutenant in a regiment quartered in Georgia, of which country he was afterwards many years Governor-General. No officer in the Russian army possessed the same talents and acquirements; his capabilities as a linguist were great, extending to thirteen languages, many of them Eastern. Though more than acquainted with the duties of his profession, he never, like the martinet of Warsaw—the late Grand Duke Constantine—examined whether the men's gloves were sewn on the inside or the out; nor did he care whether their caps were put on at the precise angle prescribed by the imperial orderly book at St. Petersburg; moreover, he had opinions of his own not exactly in accordance with those of his master. A few years ago, his division was ordered to one of the great reviews; but, though in a good and effective state, its appearance did not meet with the approbation of the Emperor, who had scarce glanced his eye along the line, when he ordered Mouraivieff to the rear, exclaiming aloud, "Bad, bad! what troops? National Guards!" The manœuvres over, the disgraced general was ordered into his presence. "What means this, sir?" demanded the Emperor. No answer. "What troops do you call these, sir?" Still no answer. "Do you know who is speaking to you, sir?" The general raised his hand slowly to his cap, but remained silent. Dismissed with indignation, he retired to his tent; the policy, however, of Nicholas, gained the ascendant over his ungovernable temper, and the next day Mouraivieff received an invitation to dinner; but the insult had been too public; he declined the honor, and retired to his estate near Tver, refusing either reconciliation or employment. Yermoloff, in consequence of some caprice of the Emperor's, or the intrigues of those about him, was also shelved.—*Jesse's Russia and the War.*

CHLOROFORM FOR DOMESTIC ANIMALS.

The last report of the Commissioner of Patents contains a very interesting article from the pen of Dr. Jackson, of Boston, Mass., (who first discovered, thirteen years since, the paralization of the nerves of sensation by inhaling ether,) on the use of ether with chloroform for domestic animals, for facilitating surgical operations, either for the cure of diseases, or for rendering them more serviceable to man. Among these operations he mentions the removal of tumors, the application of actual cautery, castration, &c., and also states that very refactory horses had been made to submit to shoeing, and soon learn to submit afterwards without a repetition of the ether.

The ether and chloroform mixture is administered with great facility, by attaching to the nose of the animal, a muzzle or basket, (fastened to the head-stall,) in the bottom of which has been placed a very coarse open-textured sponge, which has been soaked in water and squeezed dry. One part of chloroform and four of ether are mixed in a bottle, and then poured upon the sponge from time to time, as needed, renewing it as it evaporates. The animal breathes it freely, and "soon falls down gently into a deep sleep of insensibility and unconsciousness," and becomes entirely passive to any operation that may be performed.

Dr. Jackson regards the use of pure chloroform as dangerous, and recommends its mixture with ether for animals, as better than ether alone on account of its greater power and concentration. The mixed vapors also act more kindly, on account of the slightly stimulating property of the ether overcoming the deadly sedative effect of the pure chloroform. Dr. Jackson remarks that he has never known a single fatal accident from the administration of the vapor, nor of this mixture, provided air was also admitted into the lungs mingled with the vapor, so as to sustain the functions of life as required for respiration. This remark, we understand, he applies to its effects on the human system, in which his practice has been most extensive.

Animals that have considerable sensible perspiration, will bear large doses without any danger; such are the bull, horse, &c., while a cat may be readily killed by a full dose of chloroform, and it should be very cautiously administered to the dog. Ether, alone, mixed with air, is considered as perfectly safe.—*Country Gentleman.*

Profit of Cows.—At a meeting of the Farmers' Club, of the town of Bedford, N. Y., December 29, 1854, the subject of discussion being the relative profits of butter-making and milk-selling, the following was presented by a member of the club:

"In the year 1853, I kept ten cows. The calves, butter, and buttermilk for pigs, amounted to $46,75 per cow. In 1854, I kept eight cows and two heifers in first time; one, two years old, the other three. The calves, butter, and buttermilk of these last amounted to $44,06 per cow.

"My cows are common natives, of no particular breed, and kept in the common way of keeping in this town, for butter-making; but much inferior to those kept for milk only. With good, first-rate keeping, as is the custom with some where they sell their milk, I think my cows will bring me in $60 each."—*American Agriculturist.*

For the New England Farmer.

CRITICISMS.

Messrs. Editors:—I think it would better suit the majority of farmers if the articles, good in themselves, were published at a proper season. If you refer to the different numbers of the last year, you will observe that many letters in relation to the best mode of planting or sowing, have appeared one or two months after planting time; those on the best mode of cutting or curing hay, have appeared perhaps after everybody had finished haying; in fact, that articles, interesting at the time they were written, have appeared two months later. The space, too, occupied by reviewing the articles in a previous number, might be filled with something more interesting to those who have read the previous number. The repetition of articles, however short, in the same number, is an objection. A little more carefulness in these matters, I have no doubt, would make your paper one of the most popular periodicals of New England.

Give us seasonable articles, so that we can immediately avail ourselves of any information or instruction you can communicate, and you will, no doubt, see the effect in an extended subscription list. Respectfully,

Boston, Jan. 15, 1854. H. L. Stone.

Remarks.—We always receive kindly, criticisms upon our labors when they seem to be made in a spirit of kindness, because they are evidences of an interest in those labors and in the general cause. With regard to publishing articles out of their season, we will relate a little of our experience to our friend. Several years since, we adopted the plan of retaining such articles as seemed unseasonable until the more appropriate time had arrived, and stated that such would be our course. But in the lapse of a few months we received so many letters of inquiry about the reserved articles, and found so general dissatisfaction, that we abandoned the plan. Correspondents cannot awaken an inspiration at will—they write when circumstances, or the spirit, moves them, and when they have written they desire to see their articles soon published. The practice is really without serious objection. If an article on any agricultural subject is worth publishing, it is worth preserving; we have, therefore, placed the agricultural matter in a convenient book form, and every year accompany it with a complete index, so that the intelligent and careful reader will always find the subjects seasonable. At most, it is only an occasional fact given during the current year that can be unseasonable. The space occupied by "the review," seems to us to be appropriate and valuable, and we believe is generally approved. A similar practice was long continued in the *Horticulturist*, while under the charge of Mr. Downing.

NOW-A-DAYS.

Alas! how every thing has changed,
Since I was sweet sixteen,
When all the girls wore homespun frocks,
And aprons nice and clean;
With bonnets made of braided straw,
That tied beneath the chin;
The shawls laid neatly on the neck,
And fastened with a pin.

I recollect the time when I
Rode father's horse to mill,
Across the meadows, rock and field,
And up and down the hill;
And when our folks were out at work,
As sure as I'm a sinner,
I jumped upon a horse bare-back,
And carried them their dinner.

Dear me! young ladies, now-a-days,
Would almost faint away,
To think of riding all alone,
In wagon, chaise, or sleigh;
And as for giving "pa" his meals,
Or helping "ma" to bake,
O, dear, 'twould spoil their lily hands,
Though sometimes they make cake.

When winter came, the maiden's heart
Began to beat and flutter;
Each beau would take his sweetheart out,
Sleigh-riding in a cutter;
Or, if the storm was bleak and cold,
The girls and beaux together,
Would meet and have most glorious fun,
And never mind the weather.

But now, indeed, it grieves me much
The circumstance to mention,
However kind the young man's heart,
And honest his intention;
He never asks the girls to ride,
But such a war is waged,
And if he sees her once a week,
Why, surely, "they're engaged."

TERMS.

We promised in a former number, to adhere as far as possible to the use of terms which are universally understood; and, if scientific terms creep into our pages in spite of us, to explain them in a little vocabulary annexed to our educational department. In pursuance of that plan we give the following:

Sulphate of Lime; Gypsum, Plaster of Paris; a chemical compound of 40 parts of sulphuric acid (oil of vitriol) to 28 parts of lime and 18 parts of water. The experiment of putting plaster with green manure for the corn crop, mentioned on page 6, is well worth trying. We here commend a very careful perusal of the article on page 5, headed, *Plaster of Paris as a fixing agent.*

Sulphate of Ammonia; a chemical compound of sulphuric acid and ammonia, very soluble in water, and favorable to the growth of plants.

Carbonate of Lime; a compound of carbonic acid and lime, 22 parts of the acid to 28 parts of lime. Marble, common lime stone, and a portion of marls, and a portion of all soils, are carbonate of lime. Carbonic acid is the gas which rises from foaming beer, cider or wine, also from soda water, and from a bit of chalk or lime stone when you drop vinegar upon it. It is injurious, if taken into the lungs—destroys life if breathed in large quantities, as in the bottoms of dry wells—but is wholesome when taken into the stomach, as in soda water. It arises from fermenting manure heaps, also from rich soils; water readily absorbs it, and brings it down in the form of rain. It constitutes a large portion of the food of all plants.

Carbonate of Ammonia; a compond of carbonic acid and ammonia. Ammonia is composed of 14 parts of nitrogen and 3 of hydrogen. It rises from fermenting or decaying substances, and combines with carbonic acid, which springs from the same sources, forming with it carbonate of ammonia, a volatile gas, that is, one which flies away in the air. What is meant by fixing the ammonia is this:—Sulphate of ammonia is soluble, that is, it dissolves in water and stays in the soil or manure, while carbonate of ammonia is volatile, that is, it flies away in the air and is lost from fertilizers which contain it. By putting in plaster, or sulphate of lime, the volatile carbonate of ammonia is changed to the non-volatile (fixed) sulphate; and in this form it remains for the future use of plants. Hence the great utility of applying plaster to all manures and keeping them in a moist condition.—*The Farm, by Prof. Nash.*

For the New England Farmer.

TAKE CARE OF YOUR CATTLE.

BY DR. JOSEPH REYNOLDS.

It is a pleasant sight to see a herd of cattle quietly chewing the cud of contentment, apparently satisfied with themselves, and all the world around them. But a herd of restless, uneasy cattle, breaking out of their enclosures, hooking and pushing each other, whenever they come near enough, rubbing off their hair against every post or tree they can get at, shaking their heads, and apparently dissatisfied with everything around them, is anything but a pleasant sight.

If you would have your cattle happy and contented, furnish them with an abundant supply of wholesome food, and keep them in a warm and comfortable atmosphere. Cattle that are pinched with the cold, are always restless, as well as those that are pinched with hunger. Dairy-men understand very well the effect of restlessness and discontent, both upon the quantity and quality of milk. However well a cow may be fed, if she is uncomfortable from cold, she will give but little milk. If she is homesick or uneasy from being shut away from her companions, it will soon be seen in the poorer quality of her milk. Cattle are often restless and discontented because their wants are but partially supplied. It is not enough that they should be abundantly furnished with one kind of food. They need a variety. In the winter, hay of various kinds, oat straw, corn fodder, roots and grain should be given at intervals. No cattle, whether milch cows, fatting cattle, or working stock, will thrive equally well on one kind of food as on a variety. They need an abundant supply of water, and should have as much salt as they will eat, both winter and summer. In the summer, when their food is green and succulent, they should have ground bone mixed with their salt. This is especially necessary for cows that are giving a large quantity of milk. They often manifest an insatiable craving for lime, and will spend hours in chewing an old bone, to satisfy their craving. All the lime taken into the system, in their food, is carried off through the milk vessels, and the operatives whose business it is to manufacture bone, have no material to work with. Our agricultural warehouses should keep pure, clean bone, ground *very fine*, for this special use.

Cattle need a variety of grasses and herbs in the summer, as well as a variety of food in the winter. They like occasionally to browse among the bushes, and to crop the leaves from the trees. Different plants have different medicinal, as well as nutritive properties. One has some quality by which it acts upon one organ, and another, some property which causes it to act upon another organ. One acts upon the liver, causing a more copious secretion of bile. Another acts upon the kidneys, another upon the salivary glands. A proper variety of plants keeps all the organs in a state of healthy activity; feed a cow upon such plants entirely as act upon the salivary glands, and she would slaver like an old tobacco chewer, or like a horse that has been eating lobelia. Those who pasture their cattle upon land capable of tillage, would undoubtedly find the health, and consequently the profit of their cattle promoted, by cultivating grasses of different kinds for the express purpose of pasturage. Cattle that have an extended range of pasturage, upon different kinds of soils, and among bushes and trees, more readily obtain the variety of food which they need.

Always endeavor to secure the good will of your cattle and horses; a turnip, an apple, a potato or an ear of corn, given occasionally to a horse, an ox or a cow, if given in a kind and gentle manner, will generally do this, and when the good will of such noble animals can be procured at so cheap a rate, who would not purchase it? Keep up a familiar acquaintance with your animals, so that they shall always know your step, and recognize your voice at once. Always maintain a good understanding with your horses and oxen. Never deceive them, and never forfeit their confidence, if you would have them trusty and faithful. Make them understand that they must promptly obey you, and that you will supply all their wants. Teach them to confide in your judgment, by never requiring of them tasks beyond their ability. Require an ox to draw a load which is beyond his strength, and repeat this two or three times, and you have spoiled him completely for the draft. Never require your horse to do what he cannot easily and readily accomplish, and he will soon leap a five-barred gate, or draw a ton, when you command it, because he has learned to trust your judgment, and believes you will not require what he is not able to do. This mutual confidence between you and your animals should be scrupulously observed, if you would have them cheerful and trusty servants. The horse of the Arab, that lives in the tent of his master, and is the pet of his family, will bear him over the burning sands, the livelong day, trusting with entire confidence that he will suit the task to his strength, and supply all his wants; and the master will share his last morsel of bread, and his last handful of barley, with his favorite horse.

But enough for the present. J. R.

Concord, *Jan.*, 1855.

For the New England Farmer.

GOOD PAY FOR A LITTLE LABOR.

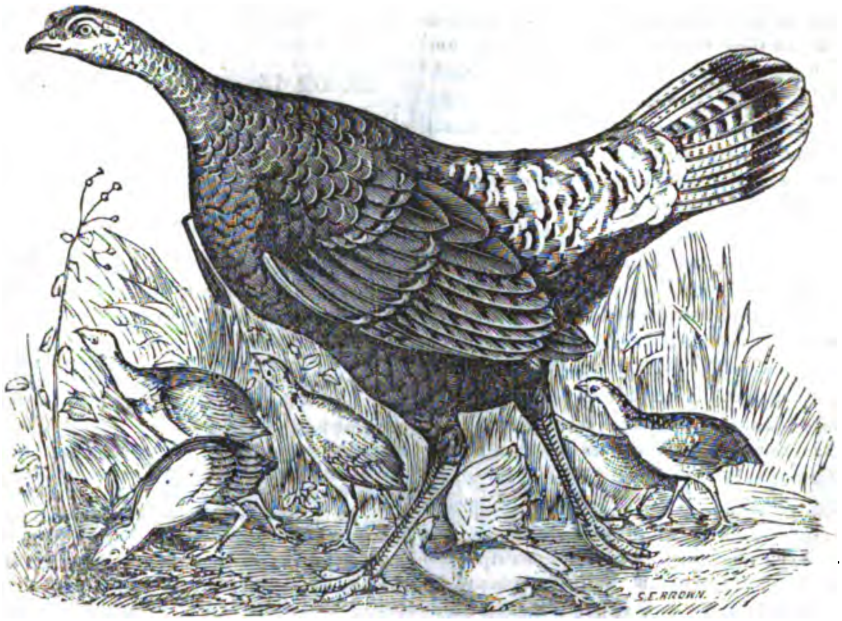
Friend Brown:—Though I am a poor man, and own but two or three acres of land, keep but two cows, one horse, two swine, and a few fowls, the latter of which a late writer in the *Farmer* thinks more profitable than any of the farm, it is my opinion that all are exceedingly convenient and will well pay their way if rightly taken care of.

I am obliged to work early and late in my shop, yet I welcome the evening when the *Farmer*, with its bright, clean pages, is brought to my house. Pleasant are the hours which I spend in reading its columns, and valuable to me the information I learn in regard to the cultivation of my fruit trees, grape vines, rose bushes, vegetables, and in the feeding and general management of my stock. I will give your readers my mode of feeding one of my cows. I purchased her last November, when she gave four quarts of milk a day. I commenced feeding her with cut hay, two quarts of shorts, and a few carrots, wet with cold water, twice a day for one month. At the end of that time she had not increased in her milk at all. I then commenced wetting the same amount of feed with boiling water, and at the end of the second month she gave regularly *six* quarts per day, which I thought a fair gain. Where a person needs considerable milk and keeps but one cow I would recommend a trial of this mode of feeding. A. Brown.

E. Abington, 1855.

Acorns and Cattle.—The *Pennsylvania Farm Journal* gives an instance of cattle being killed by excessive eating of acorns. The fatality occurred on the farm of Richard Lamborn, near Westchester, Pa., who lost fourteen head in the course of a few days. The cattle at first showed symptoms of illness by watery eyes, drooping head and spiritless walk. The cows failed of their milk, their carcasses were almost bloodless, and the stomach and intestines exhibited every appearance of suffering from powerful astringents. As acorns are known to possess astringent properties to a considerable degree, there can hardly be a doubt that they were the cause of the difficulty. Some varieties of acorns are much more astringent than others. The nuts in this case were of White, Black and Chestnut Oak.—*Am. Agriculturist.*

☞ If you know any thing that will make a brother's heart glad, run quick and tell it; and if it is something that will only cause a sigh, bottle it up, bottle it up.



THE DOMESTIC TURKEY.

Some thirty or forty years ago it was a rare thing with many families to have a roasted turkey, or even a pair of chickens, upon their table, more than once or twice in the year; and then on some particular occasion, such as Thanksgiving, Christmas, or when some long-absent friend had returned to sit once more at the family board. Good beef could then be purchased, by the quarter, for three to five cents a pound, and in small quantities for five to eight and nine cents a pound. At the same time nice turkeys brought ten to fifteen cents, and were looked upon by the mechanic and laborer as a *tabooed* food to them. Now the best beef sells at from ten to seventeen cents, and poultry at from eight to fifteen cents, though rarely commanding the latter price. Poultry is often on the tables of all who desire it, and is esteemed wholesome food, and, considering the waste in each, as cheap as beef.

Turkeys cannot be profitably raised on small farms and in thickly-settled neighborhoods, as they require a wide range, and where they can enjoy it will not only provide mainly for themselves until near autumn, but will also be of much service to the farmer, in destroying great numbers of grasshoppers and other insects that infest the farm. Indeed, some years, when grasshoppers are numerous, a flock of turkeys on the farm will save whole crops of grass and grain.

There is no more difficulty in rearing turkeys the first two or three months than in rearing common fowls, and the same rules are applicable to parent and chick. The nest for sitting should be in a dry and secluded place, where the hen will not be disturbed—neither approaching the nest to turn the eggs or to feed her—she will perform the first duty herself, when it becomes necessary, and come off for food when she requires it. It is very rarely the case that the chick needs any assistance in extricating itself from the shell, and many are injured by an impatient intermeddling with a matter which they understand, and will perform perfectly well, if left to themselves. Nor should they be interfered with for at least twenty-four hours after being hatched—they want quiet and the warmth of the mother—not food. But if they leave the nest and appear to be in search of food, place a little wet corn and cob-meal before them, or corn, wheat or barley, pounded into quite small pieces.

Many foolish notions exist among poultry breeders, and many practices prevail which are a good deal worse than useless, and which some of the books on poultry—we are sorry to say—still inculcate. Almost any treatise on the subject will give some 20 or 30 pages on *the diseases of poultry;* but as it is much easier and better to *prevent* disease than to *cure it,* we shall recommend none of the medicaments or nostrums employed. When poultry is properly sheltered and fed, disease will only be the exception to the rule of general health. Want of proper food, irregular feeding, too many occupying a small space, exposure to cold, and more than all these combined, *exposure to wet*, are the prolific sources of disease in the poultry-yard.

We believe that exposure to *wet* and *cold* is *the principal cause* of loss of the young of all kinds of domestic fowls, including even ducklings. Nearly the whole dismal catalogue of diseases—the pip, or gapes, diarrhœa, indigestion, asthma, fever, consumption, moping, rheumatism, roup and vermin, may be traced to this. We have lost 50 chickens in a single storm where wind and rain has found its way to broods which we supposed were safe,—and it was 20 years before we discovered a remedy. Now we rarely lose a chicken by disease. After taking young chickens or turkeys from the nest, *place them upon a tight scaffold in the barn*, and tie the mother there, where they will be kept from wind and rain, and if fed regularly upon a variety of food, they will remain healthy, and grow with wonderful rapidity. Keep them in this position until sometime in May, and then if they are placed in coops, do not let them run at large during rainy weather, or while the grass is wet with dew in the morning. Observing these simple rules, there is no difficulty whatever in rearing young turkeys or chickens.

1. Protection from *wet* and *cold*.

2. Sufficient room, or range, so that they may not be crowded.

3. A variety of wholesome food and water, with access to broken bones, oyster shells, gravel or old mortar.

4. Perfect cleanliness.

But turkeys must have a wide range; to confine them would be about as great a departure from nature as to expect the pear from a willow, or a fleece of fine wool upon the back of a calf. Feed the flock of turkeys habitually at night near the buildings, and thus induce them to come to roosts prepared for them in high places, to which they may have convenient access. Cared for in this way, the loss will be trifling, while the profit will usually be larger than from any other item on the farm where the same amount of capital is invested.

If fed liberally as autumn approaches, and continued until market time, there will be no need of shutting them up for fatting; they will not only become fat enough, but their flesh will be tender, juicy and sweet. These statements grow out of an actual experience of many years in rearing turkeys and other fowls.

To Prevent Iron from Rusting.—Warm your iron till you cannot bear your hand on it without pain to yourself. Then rub it with new and clean white wax. Put it again to the fire till it has soaked in the wax. When done, rub it over with a piece of serge. This prevents the iron from rusting afterwards.—*N. Y. Far. & Mech.*

For the New England Farmer.

LABOR IN STATE ALMSHOUSES.

Simon Brown, Esq.:—Dear Sir,—Since your election to the State government, I have desired to say a word or two to you in relation to the agricultural department of the new State Almshouses, the more as I am aware of your experience in all that belongs to the culture of the soil.

Gov. Gardner, in his message, expresses the proper views in regard to these institutions, especially in what he says of work-shops, and of practising strict economy.

"Industry and Economy" should be a motto to be engraven on the door-posts of every workshop, kitchen and bakery, in every pauper establishment in the country.

To ensure the most economical and productive management requires a very considerable degree of skill on the part of the superintendent, in the adaptation of the crops raised, to the wants of the inmates, more than to the demands of a neighboring market,—and at the same time, in addition to this, to provide, in a portion of the agricultural operations, opportunity to employ that kind of light labor which is always to be had in abundance in pauper and reformatory establishments.

Attention should be given to raising such staple crops as go to make the food of the inmates. Herbs have been found profitable to raise for market; most of the labor necessary for their cultivation can be done by boys, and a whole large crop may be sent to market at one time.

It has been the custom at some of our city establishments, to engage in market gardening, sending quantities of green produce to our markets, in daily competition with our neighboring farmers. This is not good management, because this class of produce requires the hiring of skilled laborers, while some of the inmates, who might have been employed on coarse or staple crops, are compelled to remain comparatively idle.

I am aware that there must be shops for the picking of oakum, hair, &c., to furnish employment for the winter, and for those who are partially disabled, but for the health of those in the establishment, as much out-door labor as possible should be done.

These institutitions should be conducted so as to save the expenditure of money in every practicable manner. No money should be paid out for staple crops which can be raised in Massachusetts.

In the management of institutions of this class, much can be saved, by a careful supervision of the matron over the store-rooms from which the clothing and provisions are given out,—sometimes these departments leak in such a way as to make the expense of their support unnecessarily increased—but this does not come within the subject we are considering.

I am very respectfully, yours, &c.,

Cambridge, January 30, 1855. G.

THIRD LEGISLATIVE AGRICULTURAL MEETING.

Reported for the New England Farmer,

BY WILLIAM W. HILL.

The third meeting of the series was held at the State House, on Tuesday evening, Jan. 30.

Lieut. Governor Brown presided, and opened the meeting with some interesting and eloquent remarks upon the general importance of agriculture. There is, he said, in the community a great want of confidence and interest in the subject. Persons engage in agriculture who have long been accustomed to other pursuits; they wish, as all of us do, to enter at some time upon the cultivation of the soil, but do so without any definite idea of what is needed in their new vocation, or what ought to be its profits. Most of those who engage in farming do so, not from choice, but from the force of circumstances, and without well defined ideas of plowing, draining, manuring, subsoiling, putting seed into the ground, its quantity, manner of covering, &c.—All this needs reform, and such meetings as these are of great utility in spreading information and awakening interest in the subject. One great obstacle in the way of a rapid extension of good farming is a foolish prejudice which prevails considerably among farmers against anything which appears in newspapers or books in regard to farming, which, after all, is only the printing of the farmer's actual experience. Science is just what the farmer needs. The fallacy of this antipathy to book farming was convincingly exposed.

Mr. Brown also dwelt with much force and truthfulness on the utility of Farmers' Clubs.—There is no way in which the cause of agriculture can be advanced so effectually as by the formation of these institutions in all the towns of the commonwealth. They promote investigation, and bring out facts important to the farmer. Another most excellent method for the farmer to improve his mode of cultivation, is, for him to spend a day as often as once a month in visiting the farms in his vicinity, examining the farming tools, going over the fields, learning the system of cultivation, &c. Nothing is more important to the farmer than a habit of constant, close observation, of all matters pertaining to his calling; and wherever he finds an improvement, let him take it home with him to his farm and apply it.

The speaker next alluded to the potent, adverse influence which is exerted by the sentiment of the female portion of the community in regard to the farmer's life. Until our young women cease to manifest such a preference as they do for those of the opposite sex who are engaged in the law, in medicine and in mercantile pursuits, we can never expect to accomplish much for agriculture. It is impossible. With such a powerful influence exerted upon them, our young men, who ought to cultivate farms, fly from the country and crowd the cities; and until female influence is won to the cause of the farmer, it will continue, and agriculture suffer. This point was very happily and eloquently illustrated and enforced.

Mr. Brown concluded by suggesting *Indian Corn* as the subject of discussion for the evening.

Mr. Fay, of Essex county, desired to explain, that in his remarks at the previous evening, while he believed that our soil and climate were both adapted to the successful cultivation of wheat, he did not wish to be understood as considering it more profitable than any other crop. In his opinion, maize was the great crop of New England, it being peculiarly adapted to our climate, with its hot, dry summers, and severe winters. He had paid considerable attention to it, and usually got good crops. It can be raised on almost any soil, with proper attention to preceding crops and cultivation. He would cultivate it after a green crop, and would not follow it with either grain or grass, but roots.

Mr. Fay spoke earnestly in behalf of farmers' clubs. Farmers are behind the age in mechanical contrivances for performing labor, and he saw no method of getting at mechanical results except by association among the farmers, for they cannot afford to experiment singly with machines. Our hay should be cut and made by machinery, for the high cost of labor absorbs a great part of the profits. He was confident that the hay crop could be got with a machine at half the expense where manual labor was employed. A mowing-machine costs $150; but it is only necessary for the farmers to club together, subscribe two or three dollars each, and make the machine do the mowing for them all. So with a machine to turn and make the hay. With both machines, farmers could cut their grass, make their hay, and house it, all in one day. The expense, divided among many, would be light. The same may be said, also, of planting corn, potatoes, turnips, &c., which can all be done by machinery, and by one machine for twenty farmers. At the south and west, machines are coming into general use, and if we would compete with those sections, we must resort to machinery.

Mr. Sheldon, of Wilmington, remarked that he deemed *Indian corn* the most profitable crop we have. In speaking of it, we are apt to think only of the corn, and nothing else; but if we look closely, we shall find that it is not a great exhauster of the soil, but is excellent in preparing it for grass, while corn fodder, well cured, will produce more milk than hay will. The manure needed for corn should not all be charged to it, for, after the corn, three or four good crops of grass can be got without manuring. For making manure, too, corn is better than is usually supposed. One hundred bushels, properly fed to cattle or hogs, will make two hundred bushels of as good manure as can generally be bought. In cultivating corn, there is no danger of too frequent hoeing. The best field the speaker ever raised, he hoed for seven weeks in succession, and was satisfied that it paid well. One great benefit of such a practice is, that it brings the corn forward a week or fortnight earlier.

Mr. Brown related a case in his own experience, where he planted a piece of corn, manuring one portion highly, and letting the other go without any dressing whatever, but hoeing it often instead. The result was that he got nearly an equal crop where there was no manure. But he would advocate high manuring, *with frequent hoeing*. The importance of a thorough pulverization of the soil is not properly understood by the farmer, and should receive his earnest attention.

Mr. Flint, Secretary of the Board of Agriculture, said that Indian corn had always seemed to him the pride of New England, being indigenous to the soil and peculiarly adapted to the climate. No crop bears our severe droughts so well, and there is none which we can rely upon with more safety. Of late years, it is the universal practice among the best farmers to plant corn on a flat surface, without hilling. Cultivated in this manner, with deep plowing, the speaker believed that it would seldom feel a drought. If the corn is hilled, the roots are often laid bare to the scorching sun. Of varieties, there is one which has been tried for a year or two very successfully, called the *King Philip*. He had distributed some hundreds of papers of the seed, and the result had been eminently satisfactory. A kind, called the *Canada corn*, is raised in Maine with much success. Large crops, of 100 bushels and upwards per acre, are raised in Plymouth county, of a variety called the *Webster*, or *Plymouth county corn;* but it is said to shrink more during the winter than the Canadian corn.

Mr. Clark, of Waltham, detailed an experiment made by him the past season in raising corn. He prepared two acres, plowing thoroughly and manuring deeply. One acre he planted about the middle of May, and the other about five days later, with an addition of 250 lbs. of guano to the manuring. The yield showed a balance in favor of the guano lot of about 15 per cent., while it also suffered less from the drought than the other. One lot was planted with 8 rowed white, and the other 8 rowed yellow corn. The speaker believed that corn was pre-eminently adapted to the climate of New England, and was of the opinion that it suffered less than any other from the drought last season. But he doubted whether the corn was as profitabte as the potato crop. A bushel of potatoes can be raised easier than one of corn, and are worth more in the market. One great advantage of the potato crop is, that farmers are in no danger of being deluged with importations from the West or South, as in the case of grain, for they are not raised to any extent there. He thought farmers should pay more attention to them than heretofore.

Mr. Fay alluded to the remark of Mr. Sheldon in regard to corn fodder, as an important consideration in estimating the value of the corn crop. His own practice is to cut the corn, even before it has quite turned yellow, and stack it with the corn in the shocks, allowing it to remain until dried, when it is husked in the barn and the stalks put one side for use. The stalks are chopped up fine, and by means of a small steam apparatus are steamed for six hours, when they are ready to be fed to the cows, who eat it freely; sheep eat it precisely as they would turnips. The expense of the steam apparatus, which is kept in operation in connection with a furnace, is about ninepence per day, and it feeds six or seven cows and a flock of sheep. The quality of the milk is much improved by it. The speaker thought that the value of corn fodder and the amount of manure which corn makes, in addition to its intrinsic value, placed it before the potato as a profitable crop.

Mr. Clark expressed himself convinced of the correctness of the last speaker's views, but remarked that in ordinary seasons many more bushels of potatoes can be raised than of corn.

Mr. Sheldon thought that the comparative profit of corn and potatoes to the farmer depended very much upon the nature of his land. Last year on good corn land he did not get over 50 bushels of potatoes, while he got 35 bushels of corn. On swamp lands he had got 400 bushels of potatoes to the acre. In such a season as the last, corn would be the most profitable. In raising corn, he had found that when plowing up grass land it was best to plow in August, running 9 or 10 inches, and in the spring let the old sod remain without cross-plowing. The crop would be better.

Mr. Buckminster of the *Ploughman*, was happy to notice that the value of the potato crop had not been overlooked by the speakers. He thought the profit on a crop depended on the kind of land cultivated, and every farmer must judge for himself. He would like to know which was best for fodder, sweet, yellow or Southern corn?

Mr. Hall, of Hampshire county, said he had fed green corn fodder to his cows; they ate it greedily, and gave more and richer milk. His horse also thrived remarkably on it. He fed the ears while yet in the milk to his hogs, and the pork they made was the finest and sweetest he ever tasted, and its superior quality was often remarked by friends who ate of it. He was satisfied that there was nothing which would make so nice pork as green corn while in the milk.

Mr. **Poor**, of Andover, made an interesting statement in regard to his manner of raising winter wheat, and setting forth the superiority of the wheat crop as a profitable one for New England farmers; but as his views and experiments have been published in the *Farmer* we omit any sketch of his remarks.

Mr. **Stockbridge**, of Hadley, narrated a case in his own experience, wherein be fallowed a crop of tobacco (a very exhausting crop) manured with 25 loads to the acre, with a crop of winter wheat, planted in September. The ground was flat, and wherever the water collected and froze in the winter, the wheat was killed, so that only about half an acre came to maturity; that, however, yielded 20 bushels. A piece of winter rye, planted on a similar piece of land, and subjected to the same influences, did not suffer from being winter killed. In his opinion, the wheat crop, although often a very profitable one, was not reliable, and New England farmers must depend on corn and winter rye for certain returns.

At 20 minutes to 10 o'clock, the meeting adjourned.

The attendance was good, and among the audience we noticed *one* lady, a very pleasing feature, certainly. We hope other ladies will take the hint and attend. They will find the meetings both interesting and instructive. If the women would only take an active interest in agriculture, and manifest it by their presence at such meetings as these, an impetus would be given to agricultural improvement which could be gained rom no other source. At the same time they would gain much valuable information.

HOUSES FOR BIRDS.

Messrs. Editors.—There are but few gardeners, farmers, or fruit-growers, who do not see the advantage to be gained by having the number of summer birds increased. Yet there are not many who do anything in the way of providing houses or nests, that this end might be obtained. If a cheap article were manufactured, tasty and ornamental, they would find a ready sale at the agricultural stores. Will not some of your readers furnish plans of bird-houses for different kinds of birds? That might induce some maker of Yankee notions, to add this branch to his trade. No present would be more acceptable to a child, than a pretty bird-house, costing but a shilling, where he could have what he could call "his birds," and which would afford him much amusement during the summer, and should there be a dozen children, and a house for each, there would not be too many.—*Country Gentleman.*

For the New England Farmer.

CULTURE OF HOPS.

Mr. Editor:—Will you be so kind as to give your friends in this region some information in relation to *hop culture*? This subject is exciting considerable interest in our community of late, and any information you may be able to impart through the *Farmer*, will be a favor to numerous readers of your valuable paper.

In particular, will you reply to the following questions? (*a.*) Are hops used to any considerable extent for other purposes than brewing? And what purposes? (*b.*) Is it probable that the price and the demand for hops, for years to come, will be such as to make it a safe and profitable branch of farming? (*c.*) Is the hop culture restricted to any section of our country, or is it liable to be ruined by extensive culture? (*d.*) The mode of cultivating and preparing for market, &c. Benjamin Comings.

Greensboro', *Vt.*, 1855.

Remarks.—(*a.*) Hops are largely used in this State for yeast and for medicinal purposes, yet by far the larger proportion is used for brewing, probably at least fifteen-sixteenths.

(*b.*) The price and demand for hops is somewhat fluctuating. The price, for several years in succession, was so low that many growers in this State abandoned the cultivation of them. Since 1848 the price has risen, and for the last five years they have been very profitable. There are few crops on the price of which we can calculate with so little certainty as upon hops. The cost of raising and curing a pound of hops is about five cents. The average price for the last four years has been about twenty-five cents per pound. The average price for the last forty-nine years is about thirteen cents per pound. In 1819 they sold as low as 5 cents a pound; in 1829 at 5½ cents; in 1847 at 6 cents; in 1848 at 7 cents; while in 1849 they sold readily at 12½, and in 1850 at 25; and during the last year, they have been known to sell as high as 40 cents a pound. No agricultural produce is so fluctuating in price as hops.

(*c.*) The hop has a wide range of cultivation, and there is nothing to prevent competition in them except the want of suitable soil.

(*d.*) Hops require a strong, rich soil, well manured. Good corn land is generally good hop land. The land is to be plowed deep, say from 8 to 12 inches, and manured by spreading and cross-plowing in. It is then furrowed as for corn. The hop plants may be put in every other row, bringing the rows of hops about eight feet apart, and planting in every other hill, brings them eight feet apart both ways. Corn or potatoes may be planted among them the first year. The first year they produce no hops. The second year they are to be poled and trailed, or tied carefully to the poles. In the spring of the year the hills should be opened and the running roots cut off, and a shovel-full of good compost manure thrown upon the hill and covered with the hoe. They are usually to be plowed and hoed three or four times in order to keep them free from weeds.

Picking usually begins about the first of September, and after this they are dried carefully in the kiln, over a charcoal fire, and packed in bales, when they are ready for market.

For the New England Farmer.

MORTGAGES ON FARMS.

MR. EDITOR:—In my former article on "Mortgages, &c.," I attempted to show what I understood by the principle, and how it was or might be applied in cases of necessity in farming matters. And in reply, "Reader" has given me his experience in several instances, and thinks it may be a sample of what mortgages come to in general. My own idea is, that he has given us his experience in the matter, which is all very well as far as it goes. Now my idea farther is, that were he to go through the State and canvass this matter in regard to mortgages among farmers, he would find hardly any two men who told the same story. In fact, the whole thing turns on "management," as I understand it; and, in fact, like any other business, more depends on the "MEN" you have to do with, than in all other matters put together. Some men will do well enough with a mortgage over them, while others, apparently going along in the same track, will fail. What does this prove? Why, if it proves any thing, it says, in substance, that in this matter more depends on "men and management," than all other outside causes you can name.

My own experience is not just what "Reader's" is on "mortgages," not having gone through all those operations. In former years, my late father began the world in a small way, of course buying his land by pieces, generally on the "mortgage" plan, as usual. In later years, when he made additions to his farm, it was done by a "note," often depending more on who the parties were he had to deal with—sometimes with an "endorser," or not, as the case might be. But all the operations came to the same thing finally, namely, the land must be paid for in time, or else be forfeited and lost. Of course, when the land was paid for, then the "notes and mortgages" were killed, and not till then. So, in reality, he never knew any difference whether the land was mortgaged or not; the idea was, of course, to pay for it in the shortest time. He, of course, never allowed himself to believe that the land could not be paid for in time, by good management, for he knew better. Sometimes he could no more than meet the interest, and, in other years, hardly that; then, again, he could pay some of the principal, and so on till the thing was finished.

Now, the point at issue betwixt us and "Reader" is, when and where should "mortgages" be allowed, and when not? I attempted to show, in a former article, how and where they might be allowed by the farmer. "Reader," in reply, gave me his own personal experience on "mortgages," which, to my own idea, does not meet the issue in question. But, as I understand "Reader" now, he is "death" on mortgages in general; but, under some circumstances, they may be allowed on the purchase of a farm, but never to raise money to make "improvements" on the same very well. Now I wish the readers of the *Farmer* to remember, in my former article on this subject, that I only recommended the mortgage plan to raise means for farm improvements when all other plans failed, and I say so now. But when it came to this, then I would put a mortgage on the farm for improvements as soon as I would to buy the land. And why not? Now, suppose a young farmer to come in possession of a poor, worn-out farm, and, after he has made some improvements in the way of a house for his family, barn, &c., he finds himself without a red cent to commence farming with. What is to be done? "Reader," in this case, would probably say the young farmer must look up some job outside of the farm, in a neighboring factory, or "hire" out by the month to a farmer until he can raise money to begin farming with. And what is to be done with the farm in the meantime? Why, nothing, of course. My plan would be to tell the young farmer to go on to the farm at once, and give his whole time and attention to it, never leaving the farm for any "outside" job that may offer, so long as he can earn three shillings or fifty cents a day for his work at home on the farm. The young farmer has nothing else to depend on to live but this worn-out farm. Then, if he works this farm on the starvation principle, how long will it be before he, in turn, will get starved out by such management?

It is, then, as we said in our former article, that the young farmer must see that he cannot afford to let his land lie idle or go unimproved. Of course it is understood that, in the first place, the young farmer understands his business, and that he knows just what course to take to renovate his land in the shortest time. All that is wanting is the ready capital, which must be had some way; he must begin by using as many improved farming implements as his means will allow, always remembering that good labor-saving farm implements are much cheaper in the long run than manual labor, in these days on the farm. Then, the young farmer must supply himself with good agricultural papers, books, periodicals, &c., and not think that part of his farming capital is wasted when spent in this way. For one of the great pull-backs in farming is a want of knowledge, which, in fact, is ahead of all other wants on the farm, when applied to practical farming. If this fault could be remedied, many a "mortgage" would be paid off with no difficulty at all, which has been left to be handed down from father to son.

Does "Reader" suppose that the parental farm, on which he was turned off on account of an old "mortgage," could not have been paid, (even in his father's day,) if the management on the farm had been equal to the best farm improvements of the present day? I do not know, of course, what "outside debts" "Reader's" farm had to meet; but I do not hesitate to say, if no uncommon debts but what grew out of the old "mortgage" was on the farm, then the system I have named above, if faithfully carried out, would have paid it. Has "Reader" a doubt of it? I see very plainly that "Reader's" idea is, that if old mortgages are paid at all, in most cases the money must come from some "outside operation," of which the farm has nothing to do with. In proof of this, he gives his own experience in No. 3, where the mortgagor never paid a cent of either principal or interest; but, in after years, it was paid in full by a son, who was a merchant's clerk. Now what does this prove to us? It looks as though the management on that farm was of the loose kind, or, in other words, just no management at all; but such as would fetch any man to ruin in time, if well carried out. In proof of this doctrine, where was the son? Why, he was in a neighboring village, or city, acting as a merchant's clerk, when he should have been upon the farm. Why, the son says, like thousands of others, farming is of no great consequence any way, as a living can be got, if you work hard enough, but no money in reality can be made. If I mean to get above a scanty living, I must "pick up my duds," go into a merchant's counting-room or lawyer's office, and try to make some money, and, in reality, be somebody. Does "Reader" see any reality in a picture of this kind? If so, cannot he see some reason why more old "farm mortgages" are not paid off than there are or have been in years past?

To us the whole thing in regard to mortgages lies in a "nut-shell," namely, for success all depends on men and management. My idea is, that the "farm should be made to carry the farm on its own back"—or, in other words, the farm should be made to pay its own way, that is, give the farmer his living and pay all necessary expense. Why not? For years, or ever since I was a boy, I have heard farmers talk after this fashion: Farming is well enough if you have got a farm of your own; but as for making money at farming, it is out of the question; you must do what you can yourself, and let the rest go; you cannot afford to "hire" any help, because it wont pay. We got in all our hay and harvest, said another farmer, and only had to "hire" so many days' work; just as though some feat had been accomplished. Now, if a farmer's labor will pay for itself, why cannot a hired man's be made to pay its own way, and leave a little profit to the farmer? For, in reality, it is these extra days' work on the farm that pay, after all. I repeat what I have often said before on this point, that there is no extra labor hired out in any business that will pay better than well-directed labor on the farm. Of course, the farmer must go with his men, and see that the work is done as directed, and not trust to the "honor" of his men to have the work done. But, then, what are young farmers to do that have just started? Nine-tenths of them have to begin with nothing; of course their farms must be paid for under a "mortgage," or never paid at all. Then they must have capital in farming implements and tools; never trust to your neighboring farmers to "borrow and beg tools" to work with, as this is a shiftless policy, followed by too many farmers; own your tools, and then work with them. To young farmers who commence in this way, I say that there is no difficulty at all but that you will come out right, with patience, perseverance and good management, to carry out the system, in time.

I never supposed that "Reader" meant to do me injustice by unfair comments on my former articles, or by unjust criticisms. But still, when he began to talk of "Bagging up shade and selling it at fifty dollars a ton as a fertilizer," I thought it had a strong look that way, as though he might place me on a par with some other "sellers of fertilizers" that I could name, but should rather not do so. Still, I may be wrong in this matter; if so, then all is right.

One word more, and I have done. To those farmers of all classes who own farms, and think they cannot afford to improve them, I say, sell out and quit the business at once, and enter on some business that you can make something or have some confidence in. For what satisfaction is it to follow a business that you cannot make any thing at? When I hear farmers commence on a complaining tirade that they cannot make any thing at farming, or scarcely get a living, I never want to hear them talk, for I am satisfied that there is something wrong in the men or their management. Yours, &c., L. DURAND.

Derby, Ct., Jan., 1855.

For the New England Farmer.

PEA NUTS AND POP CORN!

MR. BROWN:—What do you suppose some of our Southern friends think we have come to, in these "hard times?" Why, sir, I have just cut out the following, from the *Bayou Sara Ledger*, Louisiana. It is represented as unusually rich and varied. These luxuries were enjoyed at a public supper at the *North*, in December, 1854. Here is the

BILL OF FARE.

SOUP.
Pea Nuts.

ROASTS.
Pea Nuts. Corn, *a la Indian.*

BOILED.
Pea Nuts White Corn.

SIDE DISHES.
Pea Nuts, garnished with Pop-Corn.
Pea Nuts, with Pop-Corn Salad.
Pop-Corn, garnished with Pea Nuts.

FIFTH COURSE.
Pea Nuts. Pop-Corn. Ice Water.

DESSERT.
Pea Nuts—roasted.
Tucket Corn—popped.
Water—with Ice.

LIQUORS.
Water. Ice Water.
Cold Water—with Pea Nuts.

FINALE.
Tepid Water—with Pea Nut Shuck Toast.

The *Bayou Sara Ledger* is mendacious! The editor should have a "Report of Brighton Market" fastened for a week to his spectacles. If we are ever reduced to "Pea Nuts and Pop Corn" for a public set-out, it must be owing to a great expansion of his "peculiar institution."

Will the *Ledger* man keep *posted* up?

Concord, Mass. W. D. B.

TURKEYS TO KILL GRASSHOPPERS.—I would advise your correspondent from Kentucky, who is annoyed with grasshoppers, to keep on his premises a flock of turkeys. I was surprised a few years ago, at seeing large flocks of turkeys in the meadows of a neighboring farmer, an enterprising, close calculating man. He told me that they had been annoyed with grasshoppers, and that by keeping turkeys a few years, he got rid of them. I have since kept a flock on my farm, and think they more than pay their way, especially where a farm is infested with grasshoppers.—*Country Gentleman.*

SALINE MATTER IN SOILS.

One grain of saline matter in every pound of soil measuring one foot in depth, is equal to five hundred pounds per acre. And this amount, insignificant as it appears, in the abstract, is more than is exhausted in forty years, supposing the grain produced upon it is sold off, and the straw and green crops are regularly returned to it in the shape of manure. In most cases farmers rely too confidently on what they have been traditionally taught to regard as the recuperative or self-replenishing power of the soil, a power by which it is blindly conceived to be capable of re-attaining fertility through its own unassisted energies when it has been thoroughly impoverished by long cropping, and deprived of almost every element upon which fertility, or the power of production, depends. Such a capacity does not belong te any soil.

Suppose the most affluent soil—a garden, for instance—to be cultivated for a series of years without any application of manure. No one can doubt that exhaustion would be the result, and that the exhaustion would be precisely in proportion to the amount or bulk of the crop produced. The same principle operates elsewhere. All the elements abstracted from the soil by vegetables, must be returned to it, or it will be deteriorated in proportion to the quantity of the elementary substances withdrawn.

Let us examine this question somewhat more minutely. Sprengel, a celebrated chemist, and long at the head of the Agricultural School of Prussia, published an exact analysis of two productive soils; the first, a fine alluvial soil, overflowed by the ocean, and for sixty years cultivated in wheat without manure; the second, a soil producing excellent crops of clover, beans, rape, potatoes and turnips, when manured with gypsum. Of these soils one thousand parts contained, after washing,

	No. 1.	No. 2.
Soluble saline matter	18	1
Fine earthy and organised matter, (clay,)	937	893
Silicious sand	45	160
	1000	1054

Now in the case of the first, the alluvial soil, the exhaustion produced by the crop was counterbalanced by the alluvial deposits, and consequently, so long as its annual or periodical submergence by the water, its fertility would be maintained unimpaired; in the latter, gypsum supplied the deficiency not made up by the decay of the roots, straw, and other products of the plants left upon the soil.

For the New England Farmer.

PLANTING TREES.

Mr. Editor:—I perceive that the committee on agriculture have been instructed to visit the State Farm at Westboro', to inquire as to the uses made of the lands on this farm, and the expediency of making additions thereto. This brings to mind a suggestion made the last year, (see Vol. VI. *New England Farmer*, p. 309,) in these words: "What more delightful appendage to such an institution, than a flourishing grove of oaks?" Let different modes of rearing be tried, and different varieties be planted, and their various progress noted and recorded; and, *sixty years* hence, when the boys who may have assisted in depositing the acorns shall be of the number who may be entrusted with the care of the institution, they will bless the memory of him who suggested the experiment. Let ten acres of the land be thus planted with the English white oak, (experience has shown that this variety advances in size twice as fast as the American white oak,) and there will be no hazard in guaranteeing that in *thirty years* the value of the land will be increased *four-fold*, and in *sixty years ten-fold*. What better deposit can be made? And then, think of the enjoyment the boys would experience in hunting squirrels in such a grove! "A word to the wise is sufficient." Essex.

January 29, 1855.

For the New England Farmer.

NOTE OF THANKS.

Messrs. Editors:—I am much indebted to you for your monthly paper kindly sent me, some years past, and small tribute pecuniary or agricultural, horticultural, floral or pomological, have you received at my hands in return. But please accept, in lieu of a more substantial and valuable consideration, my very sincere *thanks for the New England Farmer*.

1. I thank you in behalf of plow-boys. I remember well when I held this office, and while pacing by the side of the team over my father's fields, how I longed for something to awake the mind, and prompt interesting thoughts, so that plowman or driver might find pleasant topics for conversation. Alas, for the weary, dreary monotony of our work, with nothing on hand worth thinking of or talking of, as to our business of dull, heavy *plow-jogging*. (*a.*) You furnish ample materials to fill up that sad vacuum in the mind of the younger and older field laborer. Great mental stupor must there be, if your articles do not prompt thoughts, inquiries and reasonings, in all who are working the soil, or gathering its products, and thus prevent their minds from lying waste, or overgrown with noxious weeds.

2. I thank you for your influence, adapted to attach farmers' sons to their dignifying employment, upon soil consecrated to freedom. The plow-boy's lash (ever to be used wisely and mercifully) falls not upon the cowering slave, but upon the dull or wayward ox, to prompt him to duty. You labor to inspire an agricultural taste,

and to show the pleasure and advantage of well-directed skill and enterprise applied to land on which our honored fathers toiled. I see no means better suited to train up and retain in all our old towns, a substantial, intelligent, worthy yeomanry, such as must ever constitute the bone and sinew of New England's strength. The hot haste to be rich often tempts to speculation, and bold adventures in untried spheres, far away from home, resulting, many a time, in disappointment and sorrow.

3. I thank you for laying open so many fields of investigation connected with agriculture, which enlist so much talent and science, showing that there is range for the powers of most gifted minds, in the domains over which extends the farmer's sway. We have learned effectually, that ignorance and blind tradition will not make our fields teem with their varied fruits, and that the scientific, enlightened mind, is demanded to direct the laborer in the proper tillage of the earth.

4. I thank you for calling our citizens away from dangerous strife and political turmoil, to one grand, common interest, not only of New England, but of our whole country. Patriotism bids you good speed, and gathers all her true-hearted sons, in fraternal fellowship under the banner of peace which you lift on high, displaying on its snow-white folds the olive-branch and dove.

J. Lee.

Remarks.—(*a*.) How vividly has this sentence brought to mind the long days of team-driving, both in the fields and on the road, of our early youth. It brings a pang now, to remember the tedious hours up and down those interminable furrows, with a plowman at the handles as sluggish and drowsy as ourselves, after the novelty of the first few "rounds" had passed away. To him, there was no beauty in the path—no shining ore—no stores of grain or grass, no germ of bud, or flower, or fruit; the furrow, a furrow "was to him, and nothing more." To him, it had never been taught that the clods of the valley contained any principle of life, and their animated beings were pressed under his heel with thoughtless indifference. But when *another* came, him, honored sire, from whose lips fell the first and early lessons to our impatient mind, how soon supineness and indifference departed. Flowers sprang up along the path—the furrows were peopled with animated life, indispensable to the whole plan, and affording texts for the most interesting and useful discourse. Standing over the upturned nest of the field-mouse, and beholding its "wee bit home in ruins," elicited a stanza of the Farmer Poet—

"Wee, sleekit, cow'rin', tim'rous beastie,
O, what a panic's in thy breastie!
Thou need na start awa sae hasty,
Wi' bickering brattle!
I wad be laith to rin and chase thee,
Wi' murd'ring pattle!"

and then with easy and natural transition, he would give a brief sketch of the life of our brother farmer and poet of nature, Robert Burns. So the denizens of the air afforded a theme. If wild geese were winging their way north to those inhospitable regions, where even man dares seldom approach,—or if their leader pursued his trackless way south, the habits of this interesting part of creation were explained, and the cause of their particular movements given. Now, while the team rests, comes our old friend, the bob-o-link, and on a neighboring maple, gives us his first song of the season. Then their habits were given; how the males change their plumage in the autumn, and both sexes congregate and pass south in flocks, feeding on the wild oats, on the banks of the great rivers, or resting in the extensive corn-fields, after having become fat. Then what a wonderful instinct they observe in the spring. They are no longer seen in flocks, but scattered all over New England, two or three pairs having their habitation in every green meadow in proximity to the dwellings of man; few or none being found in secluded places. And so, with free and pleasant discourse of the principles involved in the labor to be performed, of the animate and inanimate objects about us, of soil, tree, flower, fruit, stock, crops, and of the love and wisdom of *Him* who gave and controls them all, the way would grow short, the labor light, and the evening found us returning to the loved ones at home as equally pleased as ourselves, with the rational and interesting duties that had fallen to the lot of each through the day.

ACKNOWLEDGMENTS.

We thankfully acknowledge the receipt of numerous and most excellent communications upon various topics, and from gentlemen of great practical knowledge of the subjects, which they discuss. Deducting a paper or two indicted by some young friend with one foot on Helicon and the other on Parnassus, and whose wild hexameters have probably saved him from a fatal collapse, and we have not one among them all but contains sound and valuable instruction. Some of them will be deferred for the present, in order to present them at more seasonable moments; but all shall have a place, first in the weekly paper, and then in a more permanent form, in the monthly *Farmer*.

Farmers! *Now is the time to write.* Write for some paper, if not for this. Review your operations of the past summer; take up any particular crop. Begin by setting down first the nature of the soil, whether it is high or low, wet or dry, drained or not; then the time and manner of plowing, and the entire preparation of the field, including manure, for the reception of the crop. Continue this process with other similar lands appropriated to the same crop on your own farm, or assist your neighbor in the same investigation. Here, then, you will have the basis, the facts, for telling the whole story, and it only remains to weave them together by the use of common, natural language, easily comprehended by all. Though truths communicated in this manner are valuable to the reader, they are infinitely more so to him who analyzes the facts and communicates them—because that process fixes them indelibly on his own mind.

In this manner any of the operations of the farm may be made to assume an interest and importance which they have never before possessed. They become, not only a store-house of rich fruits, and flowers, of grains, herbage and cattle, but a *Book of Revelations*, incessantly unfolding to our wondering senses the manifestations of Divine love, wisdom and power. This is not only a mutual labor between us, but a mutual benefit—it is difficult to tell who is the debtor. Intercourse with good farmers, at your clubs, social gatherings and visits to your homes, is to us as a perennial spring to the thirsty soil;—with these, and constant recourse to books, which are the recorded experience of others, there should be no lack of interest or of sources of information to any of us.

When the attention is turned, critically, to any particular subject, whether it be field or garden crops, reclamation, draining, plowing, or to fruit and forest trees, that subject will soon assume an interest and importance which it has never had for us before; and nothing will so much increase that interest and fix the facts upon the mind as writing of them. Farmers, you have the facts—give them a tongue through the pen and newspaper.

Among the articles on hand, are two or three in relation to the *Basket Willow*, correcting some supposed errors in former communications, and describing minutely the proper soils, modes of cultivation and preparation for market, its value, amount used, and the sums annually sent out of the country for the raw article. These will be given in season to afford the necessary information to any who may desire to commence its cultivation the coming spring.

We have also received the first number of a series of short articles upon our *winter migratory birds*, from our accomplished friend and critical observer, S. P. Fowler, Esq. Birds are intimately connected with our agricultural and horticultural operations, and their habits ought to be better understood.

Cashmere and Thibet Goats.—Dr. James B. Davis, the original importer of those exceedingly rare and valuable animals, the Cashmere and Thibet goats, presented at the Georgia Agricultural Fair a fine collection of the pure breeds and their crosses upon the common variety. The pure Cashmeres have thus far proved perfectly hardy and quite prolific in the south, and their fleece, which is very heavy and abundant, is used in the manufacture of the finest Cashmere shawls and other costly fabrics of the Oriental looms. We do not hazard much in ranking this importation of Cashmere and Thibet shawl goats among the most important of recent southern enterprises, and predicting for the fortunate possessors of these animals the completest success. Dr. Davis lately sold one pair to a northern company at $1000, and the remainder of his pure bred Cashmeres have lately passed into the hands of a very successful and competent breeder of domestic animals, Mr. R. Peters, of South Carolina.—*Rural New-Yorker*.

For the New England Farmer.

PRUNING APPLE TREES AGAIN.

Mr. Brown:—You published a short essay, over my name, on *pruning apple trees*, in the January Monthly *Farmer*. Your good-natured Winchester correspondent, whose criticisms are always lively, hardly accepts my theory. He says—

"*Pruning Apple Trees.*"—As I am unsettled in opinion on this subject, I read everything relating to it with interest. Forest trees get along comfortably without trimming, and so do shade trees generally. But, says Mr. Brown, "apple trees grow with a superabundance of limbs that provision may be made for casualties, and an opportunity afforded the cultivator to *train according to his particular "taste."*" Now that is very kind in nature, certainly; but it would save me much doubt and hesitation if she had labelled these "superabundant limbs" respectively, as the case might be, "jackknife," "handsaw," "axe," &c. If Mr. Brown is disposed to be offended by these remarks he must give the editor half the blame, for attaching that article on page 38 to his recommendations on "Beautifying the Farm."

To be sure, my good sir, nature *is* "very kind;" there is no mistake about *that*. As to the labels (an original idea) one who is pretty familiar with her alphabet always sees them.

Your correspondent thinks "forest trees get along comfortably without trimming." It is not settled that it "don't pay" to trim forests. Why dead limbs should be left hanging to a White Pine, to run through an otherwise clear board bye and bye, is an open question.

The difference between forest trees and fruit trees is very apparent. The former are indigenous to the soil; the latter the result of importation and long years of patient training. Apple trees may get along comfortably, perhaps, with less care than many bestow, but to be of the greatest profit, attention and labor are indispensable.

"A Reader" will at once see that forest trees can ripen no fruit in their dense shade. Apple trees are very much thinned in the moist climate of England to admit the sun. What does the common observation prove, that "the apples from the sunny side of the tree are the fairest and best?" As to the "*particular taste*," I take it most men have a way of their own. I judge so by a glance at the orchards that have come in my way. The trees are trained in all manner of shapes; some so high that a fishpole would hardly reach to the lowest limbs, and by nothing short of a fire ladder and a sailor could the fruit be gathered. Others I have seen trained so low to the ground that hardly a calf, much less a pair of oxen, could walk under the limbs.

As to "casualties," they are common and are to be expected. A heavily laden tree, even if carefully propped, will sometimes give way under its load.

I may add that fruit trees require pruning more than forest trees, because their culture is, in a measure, artificial.

Is "A Reader" as much "unsettled?"

Concord, Mass., Jan., 1855. W. D. B.

For the New England Farmer.

ABOUT PEAR TREES.

Mr. Brown:—Dear Sir,—I want again to say one word upon the subject of pear trees before I leave your paper, or rather, before it leaves me. I have, during the last ten years, given some attention to the garden culture of pear trees. I began, ten years ago, with planting out some half dozen from Long Island, one and two years from the bud, costing something like a dollar and a dollar and a half apiece. They had a growth of five and six feet. I put them into as good soil as there was in the garden, on the border of a bank raised about two feet, and manured and cultivated every year since; but I cannot make them grow.

During the last six or seven years, I have taken from the wild pasture land, partly covered with bushes, such wild pear trees as had got up beyond the reach of the cattle, and others that had been freely browsed by the cattle, and from two to six feet in height, and set them in my garden, covering two-thirds of the ground, from eight to twelve feet apart. They have all been cultivated alike, both those that came from Long Island and the others. The wild trees were sometimes worked the same year, in which they were transplanted, and sometimes the next after transplanting. The wild trees usually had a bulb, somewhat like that on an onion stalk, on some one or more of the minor roots. I have thus set out some thirty or forty trees of the native crab pear. The wild trees have grown far beyond my expectations, are now twelve and fifteen feet in height, and ten or twelve have borne fruit, two or three for several years, and I have refused ten and fifteen dollars apiece for some of them; while the nursery trees from Long Island have not made a foot of wood during the ten years, and have made only abortive attempts at fruit bearing. My experience would seem to warrant me in giving the preference to wild pear trees over those of nursery cultivation. I suppose some of these trees, before they were taken from the wood, were twenty years old. I have hitherto thought that pear trees could not be cultivated too highly; but I now think they can be in the nursery, but not after they are permanently located; it is somewhat different with apple trees. All trees need cultivation; but I think apple trees may be forced beyond a healthy and fruitful condition.

I have noticed and spoken of a *bulb* upon the main root of the wild pear tree, which is as hard and solid as any other part of the root. Has this enlargement any thing to do with the health and vigor of the tree, or not? It seems as though it could not be accidental, as it has been observed too frequently. The pear tree is long-lived and a rapid grower, in its wild state, shoots starting up from two to four feet in a season; and may not this enlargement be for the purpose of making larger drafts from the soil for its nourishment, or may it be a reservoir of moisture for the necessities of the tree in a dry season.

I have said that several of these trees have borne fruit, such as the Bartlett, Bilboa, Catalac, Winter Nelis, &c. I want to say one word in favor of the last, viz., *Winter Nelis;* I think it one of the very best pears that grows. One of my trees has borne this pear for three years, between two and three dozen the first year, fewer the second, and more the last. This pear ripens in December, and resembles in flavor the old St. Michael, in its most perfect state, and is destitute of the imperfection of the St. Michael. I want every fruit-grower to cultivate this pear. I have not had great experience, but I believe, and have understood from others, that it is a great bearer.

Thus, Mr. Brown, I have given you some account of my little experience in the cultivation of pear trees, and I think that I have not quite failed. M.

Topsfield, Jan., 1855.

For the New England Farmer.

LUNAR INFLUENCES.

Mr. Editor:—I have read with much interest the suggestions of your correspondent from Bloomfield, C. W., on *Lunar Influences.* Notwithstanding the entire absurdity of the thing, there are hundreds, aye, thousands, who have more or less confidence in such proverbs or prejudices. And is it strange they do, when in every community we constantly see many led captive by phantasies still more visionary? An instance of a remarkable rebuke of one of these follies was brought to mind by the perusal of your correspondent's communication. At a meeting of the Board of Trustees of one the oldest societies of the commonwealth, one of the members, possessed of more *acres* than *ideas,* was descanting with much eloquence upon the most proper time for *cutting bushes,* that they might not *rise again,* when he said it should be done in the last quarter of the moon, in the month of August, when the sign in the almanac was in the heart, and then done, the bush would never sprout again. This he laid down with great emphasis, and averred that he had repeatedly tested the fact, by his own experience. An elderly gentleman, who was in the chair at this meeting, said, "My friend, while I have the honor to meet you at this Board, I beseech you never again bring in the influences of the moon upon any of your experiments in culture. Let me tell you, she has no more to do with them than *the man in the moon.*" Thus rebuked, the whole assembly stood aghast, and the *conceited egotist* shrank back, and never spoke again on the influence of the moon. J. W. P.

February 5, 1855.

FOURTH LEGISLATIVE AGRICULTURAL MEETING.

Reported for the New England Farmer,

BY WILLIAM W. HILL.

The *fourth agricultural meeting* of the season was held at the State House, on Tuesday evening, February 6. The weather was severely cold, and in consequence but a small audience was present. The subject for discussion was *Farm Stock.*

William S. King, Esq., of Roxbury, presided, and opened the meeting with some interesting remarks. The subject of *live stock* he considered one of the most interesting and important connected with agriculture, and one which could not be fully discussed in a single evening. In his remarks he would confine himself to neat stock—milch cows. The principal breeds in New England are the short-horns or Durhams, the Devons, the Jerseys and the Ayrshires. He had owned and bred all these kinds except the Ayrshires, and his experience was that the Durham would give more milk, in proportion to the food consumed, than any other breed. There is a prejudice against them in New England, however. There are two tribes, as distinct as the Durhams and Ayrshires—one built for the shambles and the other for milk. Most Durhams in New England are those built for beef—large, square, and small milkers. North Devons are popular in this section of country, and he would admit that, for *all purposes*, they were the best adapted for New England. The oxen are excellent, combining lightness, strength and docility. He had never fallen in with an Ayrshire cow that equalled her reputation, although he had looked through many herds. They are not equal, as a whole, to the Devons. The Jersey cattle are a breed which is yet to be more extensively known in this country. There is no doubt that they excel in richness of milk all other varieties; but whether they are so good for the farmer to buy, is another question. A cross of this with the best native stock would probably produce a very superior breed. The native stock he believed to have descended from the Devons. It stood high in his regard, and if he were about to purchase a single good cow, he thought he should select a native. The great trouble with native stock is, that it does not perpetuate its good qualities. They are a cross of every thing, so that in the calf they sometimes take the characteristics of their grandfathers or grandmothers. If he were going to start to-day to bring up a breed of cattle, however, he should start with a native cow. In regard to the management of cattle, much remains to be learned by farmers. Cleanliness is a great thing, not only for the appearance of the thing, but for promoting the health of the animals and obtaining a good quantity of milk. They should be fed, too, both in regular quantities and at regular periods. Great care should also be taken to treat them well. A cow, neglected or ill-treated, will not yield so much milk, or give it so readily, as one kindly treated and cared for. In closing, Mr. King alluded to the diseases of cattle, remarking that a great many animals are lost which might have been saved if farmers were only better acquainted with the subject of diseases in cattle. As we go through the country, we find that farmers are very ignorant on this point, and follow blindly the customs of their ancestors. Cattle are often put to death by the medicine given them. He alluded to the "soft tail" and "milk vein" notions, as illustrations of the need of information among farmers. The idea that, by cutting off a "soft tail," the life of the animal may be saved by preventing its extension upwards and along the vertebræ, is wholly false, for the soft spot would not spread half an inch in ten years, and the animal would die of old age before that could kill it. The idea that the large vein along the belly of a cow is the "milk vein," is equally erroneous, it being nothing but a canal from the front to the hinder part of the body, and discharging into the loins.

Mr. Dodge, of Sutton, followed, and stated that by the Patent Office returns, he learned that there were some 20,000,000 horned cattle in the country, which, at $20 a head, would represent a value of $400,000,000. Add to this the horses, mules and swine, and we have a total of from seven to ten hundred millions of dollars. Yet he had not been able to find anything more than a mere allusion in any President's message in regard to agriculture; and never any extended notice of this important subject in the Governor's message in this State, until this year. As an illustration of the want of proper surgery in the treatment of cattle, he stated that he once lost a fine Devon heifer, worth $200, from bronchitis, for which he could get no help. He had no doubt but that the Devons, Durhams, Alderneys and Ayrshires would perpetuate their qualities, and advised a cross with native stock. Mr. Dodge thought the State Board of Agriculture should take in hand the matter of experimenting with different breeds of stock, as it was too expensive for individuals generally, and let the farmers reap the benefit.

Dr. Dadd, Veterinary Surgeon, being called upon, made some very interesting remarks in regard to the diseases of animals, and their treatment. The veterinary science, he said, had been too long neglected in this country, and for one reason, because it has been practiced generally by men who had but little knowledge of anatomy, physiology, and the laws of life, and therefore operated with poor success. They begin an examination of an animal by hunting for a "soft place" in the tail, and failing in that, go to the other extremity, and examine the horns. If they find the horns hot, they say that the animal has the "horn ail," and commence curious operations in boring the horns. But heat in the horns is only a symptom of disease, not disease itself.—Like the tending of the circulation to the surface in the human system, it indicates a want of equilibrium. Sometimes on boring into a horn, *pus* is exuded, and the operator immediately cries "horn-ail." But this is nonsense. There is a direct connection in the horns of animals with the nostrils, and this matter which escapes is caused by nasal gleets, or running of the nose, and should be drawn off in a natural way. Upon the inner surface of the horn is a membrane, and if it is punctured by boring, a disease in the horns will be likely to ensue. Hollowness is a characteristic of horns in all cattle; there is a perfect channel, extending from the tip of the horns to the nose. There is a disease of the brain which sometimes destroys cattle. He had put his hand into the brains of cattle after death, and found them as soft as sponge. This is owing to derangements of the stomach. There is a great degree of sympathy between the head and the stomach; strike a man a blow on the head, and it will make him feel sick; strike him on the stomach, and it will make him fall down from giddiness. Now this "horn-ail" is indigestion. The speaker related the case of a cow which was driven ninety miles, and on arrival home, was found to be suffering from constipated bowels. Her owner was ignorant of the proper measures to be taken, and applied to his neighbors for advice; they recommended some one thing, and some another. He gave her, three days in succession, a pound of salts, and these failing to produce any effect, 36 drops of Croton oil, (enough to kill any but a sick cow,) then a quarter of a pound of antimony, and finally, a quarter of a pound of gunpowder. The animal died, and he found, on a post-mortem examination, that all this medicine had passed into the paunch, and had consequently produced no effect. If medicine is poured rapidly into a cow, it will run directly into the paunch; but if administered gently, the cow will be enabled to pass it away to the fourth or digestive stomach, where it will operate. Horses, however, are so constructed, that whatever is poured down the throat is sure to pass into the stomach. Cattle are subject to the same diseases as we are, and should be treated in like manner, and with equal skill. We have a disease among cattle in this country, called *pleura pneumonia*, which generally takes the best of the herd. Veterinary science will tell the farmer to inoculate the diseased ones with the breath of the healthy, and a cure will be the result. A horse taken with the cholic, which is produced by the gathering of carbonic acid gas in the stomach, which cannot find vent, cannot be cured by the ordinary remedies; by inserting, with the help of instruments, a tube, a passage is provided for the escape of the gas, and the animal is relieved. When constriction of the neck or the bladder is the difficulty, of which science enables us easily to trace the symptoms, a cure may be effected by a similar course of action —letting off the urine with an inserted tube. Spasmodic cholera is seated on the muscles, but originates in the nerves, and consequently the nervous system must be acted on. Cleanliness and kindness in the treatment of cattle were urged by the speaker as points of much importance.

Mr. Sheldon, of Wilmington, spoke upon breeding of cattle, remarking that he had been acquainted with most breeds, except the Alderney, and he was rather in favor of native stock. It is said that they will not perpetuate their good qualities, but the fault is more in the breeders than in the cattle. He noticed that gentlemen who advocated foreign breeds, recommended, after all, that they should be crossed with the native stock. But if foreign breeds are the best, why mingle them with an inferior stock? Why not keep them pure? He was unwilling to admit that foreign breeds are any more reliable than native stock, if it has been here *twenty-one years*. He spoke highly of Durhams, yet considered them inferior to natives, and expressed the opinion that we shall yet be obliged to fall back upon the latter.

Hon. Seth Sprague, of Duxbury, believed that the comparisons made in favor of native stock were based upon rare specimens which were selected from lots of perhaps a thousand at Brighton, and therefore the comparison was unfair. Again, the object of English breeders was lost sight of. In England, the breeder aims at producing the best animal for a specific purpose—as for beef, milk or work—chiefly, however, for beef. The Durhams, Devons and Ayrshires will make more flesh on the same amount of food than any native stock. If we pursue the course which the English do, we can get just what we want. Now we breed and buy without any definite object. Without concluding his remarks, Mr. Sprague, it being 9 o'clock, moved that the meeting adjourn, and that the subject of *Farm Stock* be continued next Tuesday evening. The motion was seconded by Mr. Flint, and carried.

Examination of a Veterinary Student.—We were present, by invitation, on Wednesday, at the examination of a student of Dr. Geo. H. Dadd. This student is about to establish himself as a physician of domestic animals in Portland, Maine. The young man, Mr. Leonard Burnham, has attended two regular sessions under the instructions of Dr. Dadd, of this city, and he showed by his answers that he is quite at home in all scientific knowledge pertaining to the department of practice that he has chosen. All the gentlemen present seemed to be gratified, not only with the proficiency of this young man, but that we are, at last, beginning to have educated doctors of animals as well as of the human species. The wonder is that we did not have them long ago.

In a country like our own, that is principally an agricultural one, hundreds of thousands of dollars might be saved to the farmers each year, if, when their horses and other animals are sick, scientific and practical veterinary physicians could at once prescribe for them. Now in the whole country there are not probably more than a dozen such physicians, while in the city of London alone there are 360. But the ice is broken, and we shall soon have a supply of good horse doctors.

At the present moment there is quite a call for such doctors in such places as Springfield and Hartford, and to properly quallified young men a field of usefulness and profit is opened. We believe Dr. Dadd to be well qualified to prepare young men for veterinary practice.—*Ploughman.*

For the New England Farmer.

ON THE USE OF GUANO.

MR. EDITOR:—I have been looking every week in the columns of the *Farmer*, to see if I could find any thing from that class of your correspondents who, about a year ago, were so anxious to know "how to use guano." Many are those who have made the inquiry, but those who have communicated the *result* of their experiments, are only as individual cases. Now this is not right; all of us who cultivate the soil, are interested to know how we can do it to the *best* advantage—that is, how to obtain the best crop with the least expense. In order to do this, we need more light; and one way of obtaining this light, is by comparing the result of experiments made by others with those made by ourselves under similar circumstances; and if, in the summing up, it appears that such experiments have produced the same results, it is so much light *gained* upon that particular point. The farmer, in all his efforts to improve his land, is to be guided by his own judgment; aided by observation, at home and abroad, and by the experience and wisdom of others, so far as he is able to avail himself of them. This is why I would ask all those who have made use of guano the past season to communicate the result, so that we may be helping each other to obtain that light which we all so much need.

I will now give you the result of my own experiment with guano the past season, upon corn mostly. I bought a small quantity of it, for which I paid $2,00, and mixed, first, equal parts of plaster and ashes, and to this I put one part guano. After my ground was plowed, I sowed this broadcast, and immediately covered it with a cultivator. I applied it to a square piece of land, in all respects like the remainder of the field, except there was no manure put upon it. I applied it at the rate of about 400 lbs. to the acre. My corn came up well, and looked well the *first* of the season; but at harvest time it showed very plainly that it *had had no manure.*

Wishing to try it in another form, I took some of the above mixture and added four parts of loam. I then selected a single row through the manured part of the field, and put about a spoonful of this in each pile, for a *part* of the row, then omitted some, and so through the row. This, also, came up well, looked and grew well, and at harvest time showed plainly that "union is strength." Being determined to have it tried in various ways, I gave some of it to three of my neighbors, telling them to make the *best possible* use of the mite committed to their charge; but not being *posted* in such matters, they put it in direct contact with the roots of vines and plants, so that life was at once destroyed, and no *light* was obtained from these sources.

Now let all others who have used guano give in their testimony immediately, so that the case may be committed to competent judges, and the verdict rendered before the time of planting is full upon us again. I am fully aware that if any one decides *against guano*, he is placing himself on the *unpopular* side of the question; yet I give it as my own candid opinion, that it cannot be made to *pay*, in this part of the country, to buy it at the present price *as a manure.* If farmers, instead of sending *abroad* to buy manure, and thereby encourage speculation to their own hurt, would make an outlay of one-half the expense in making and saving the manures upon their own farms, they would obtain that which would be much more valuable to them than any foreign substances or concentrated manures made by professors for the market. There are but very few individuals who understand how to use guano *properly*, and *as* few who understand how to avail themselves of what is within the reach of every farmer, ready to be converted into manure, and apply the same to their lands in the most proper manner.

It was a remark of one of the best farmers in Worcester county, and one who, some would think, saved *all* his manure, "that he did not make and *save* more than half he ought to in the shape of manure." But my thoughts have led my pen astray, and I must give you a reason why I have *forced* myself upon your notice, as an apology, and then close. As I read over the *Farmer* and *Ploughman* week after week, there seems to come up no voice from this section to aid on the good work of improvement; and, therefore, I have thought *I* would send you a few lines, which are at your disposal. If they shall see the light, and provoke others to *better works*, then my object is accomplished. But if you do not consider them worthy of notice, I will *thank* you for not *exposing* my weakness; and, while I endeavor to improve my land, I will also labor industriously to cultivate my own mind, so that, at some future day, I may be able to stand in the circle of respectable society. AMPLIFICATOR.

West Brookfield, Jan. 25, 1855.

REMARKS.—We hope the expectations of "Amplificator," and those of hundreds of others, will be realized by hearing the result of many of those who have experimented with *guano*. Let the statements be concise and directly to the point, and we shall be able to give many of them. The subject is important. Why did not the writer give us his name?

HI! G'ALANG!

Come, jump in, old girl,
And away we will whirl,
  To contrast your rose cheek with the snow.
O, ne'er mind the sleet—
Tuck that round your feet—
  All right! Come, old hoss, way you go,
    Over the snow,
    Hip! hip! hurra!
    What greater delight
    On a moon-gilded night,
    With Bess at my side,
    Than a jolly sleigh-ride—
      Say?

I care not for Care,
I can distance Despair,
  With a nag that's 2.40 and sound;
'Mid laughing and kissing,
Upset nearly missing,
  Away we bound over the ground.
    Through the bright snow,
    Hip! hip! hurra!
What greater delight
On a moon-gilded night,
With Bess at my side,
Than a jolly sleigh-ride—
    Say?

For the New England Farmer.

CULTIVATION OF THE POTATO.

MESSRS. EDITORS:—I would like to obtain, through your paper, some information on the cultivation of the potato, from persons extensively engaged in raising them for the Boston and New York markets. I am informed that this is the principal business of many farmers in the southern part of this State, and that some of them plant fields of ten, twenty, and even forty acres in a season. Those who are thus extensively engaged in the business, it is to be presumed, have, from their long and extensive practice, and from superior attention to the most approved modes of raising and harvesting their crops, acquired possession of many little items of information and experience, which others who have bestowed less attention to the subject, are ignorant of. I say *little items*, for these ordinarily constitute all the real difference that exists in one man's performance of a piece of work over that of another; and it is usually the case that in strict attention to matters, which in the abstract are considered trivial, that the most astonishing results ensue. So far as my knowledge of potato culture extends, there is entire want of uniformity in every farming community; and not only so, but there is more diversity of opinion and of practice, in the production of this root, than in the production of any other kind of crop.

In preparing the ground, some prefer turf ground of heavy quality, to be plowed or thrown into ridges of two furrows to the ridge, late in the spring or early in summer, and deposite their seed between the folding clods, whilst others would certainly have plowed such ground during the preceding autumn, and, previous to planting, would have cross plowed, harrowed and thoroughly pulverised the soil. One preserves his seed for planting by keeping it fresh in the earth till it is wanted for use, whilst another smokes and dries it to a crisp. One plants large tubers, another small ones; and others again prefer halves, quarters, or single eyes. With one, science has demonstrated that every tuber has a head and face, and that it should be deposited in the ground with great care and in a certain position; with another, science is a humbug, and all such care is nonsense. That mysterious planet, the moon, looks down with a smiling face and proffers her bountiful gifts upon her faithful votaries; whilst others plant just when they get ready, regardless of her frown or favor. And how many kinds of potatoes there are that lay claim to superior qualities it would puzzle a Wall Street broker to determine. One keeps up the old practice of planting in hills, full four feet apart, and regards any innovation upon this ancestral usage with something like the same abhorrence that he would the demolition of a noble school-house and the erection of a new one, after looking downward and consulting the affairs of the pocket.

Another, General Barnum, for instance, of Vermont, would prefer planting in drills only 12 inches apart, with a space of only one foot between the potatoes in the drill. One makes use of the hoe in planting, another the plow, whilst a third pays his respects to the practice of the aborigines, that of depositing the seed in a hole made by a pointed stick. And as to manuring, why, a little more than a year since I paid a lecturer on agriculture a dollar and a half for telling me how to raise crops without manure; and subsequently I paid another lecturer two dollars for explaining the mysteries of cornstocking and the benefits of high cultivation. Cheap enough! and there is no kind of manure or mode of application that has not its advocates. As to after culture, some believe in hoeing once, some twice and some three times, whilst others do not hoe at all. Some make high hills, some low, some sharp. Some do all their hilling at first hoeing, others reserve it for the last. And in harvesting there are few crops that accommodate such a diversity of implements, so differently applied for accomplishing the same result.

Now all these different modes of selecting and preserving the seed, of manuring and cultivating the soil and the crop, and of harvesting and preserving the roots, indicate an unsettled state of opinion in regard to the production and general management of the potato, which is probably without a parallel in the production and disposal of any other crop? And why all this diversity? Is it because the potato is perfectly adapted to all kinds of treatment, and that all kinds of cultivation will eventually be rewarded alike? Or is this lack of uniformity owing to a want of thought, of study and general knowledge, in regard to the utility and feasibility of one mode of operation over another? Most probably the latter. With the mass of farmers in this country, system, in the production of the potato, is by no means the order of the day.

If the time shall ever come when the practice of farmers shall be more consistent with general rules, it will be brought about, chiefly, through the agency of reading, thinking, practical, matter of fact men. It is the practice and experience of *such* men that I solicit through your paper. And in the mean time I may offer some remarks of a practical nature for publication on this subject.

Bristol, Ct., Jan., 1855. C. Blakely.

Remarks.—Thank you, sir. You are undoubtedly able to teach most of us in potato culture. At a recent meeting of the "Concord Farmers' Club" the subject of potato culture was pretty fully discussed, and we believe all the practices to which you have alluded were acknowledged to be in use among the speakers. No persons, however, produce finer crops than these gentlemen, and scarcely any two cultivate alike. They all agreed, however, in one thing, viz: that small potatoes (not the *smallest*) or large ones cut are better for seed than large whole ones. Please write us often.

For the New England Farmer.

A GOOD COW.

Friend Brown: — Much has been said about Mackey, Berkshire and Suffolk hogs, and about Durham, Devon, Ayrshire, Hereford and Alderney cows. All of these have had their day, and all have more or less good qualities. I admire a good hog or a good cow, let their *breed* be what it may.

But have not the foreign breeds had the parlor long enough, while the natives haee been shoved into the back-room? For thirty-six years I have been trying to produce the best heifer in the world for dairy use, both by raising and selecting from other herds the *best* I could find, without regard to name or breed, always raising my own bull from my best cow. The best heifer I ever owned I sold to D. D. Hart, Esq., Ticket-master at Boston and Lowell Railroad Depot, Boston.

I now have a heifer, two years old last spring. She dropped her calf on the 23d of December last, making the calf eight days old at the end of the year.

On the morning of the new year, we commenced milking her, and weighing the milk, and making butter, which proved as follows:

QUANTITY OF MILK.

First Week.	*Lb.*	*oz.*	Second Week.	*Lb.*	*oz.*	Third Week.	*Lb.*	*oz.*
January 1,	26	8	January 8,	27	12	January 15,	26	4
January 2,	26		January 9,	27		January 16,	25	12
January 3,	27	4	January 10,	27	8	January 17,	26	
January 4,	23	0	January 11,	26	8	January 18,	26	12
January 5,	27	8	January 12,	26	4	January 19,	29	
January 6,	27	4	January 13,	26	4	January 20,	25	12
January 7,	24	13	January 14,	24	12	January 21,	24	
Total,	182	00	Total,	186	00	Total,	182	8
							550	8

QUANTITY OF BUTTER.

First week	8¼ lbs.
Second week	9½ lbs.
Third week	9½ lbs.
Total	27¼

The quantity of butter produced by her, the first three weeks of January, I consider equal to 14 lbs. per week in June, provided she had calved in May. Her recommendation is this; if any man will bring to my stable, this winter, a heifer of the same age, that dropped her calf about the same time, of any breed, born in any part of the world, and let them be fed and milked just alike by one disinterested person, to be agreed upon by the parties, the owner of the heifer that produces the most butter in one month shall take both heifers. Her breed I call "*Improved Long-lived Native American*," springing from a race living and doing well to the age of twenty-five years. The present owner of the mother of this heifer, (a gentleman whose word I have not the least reason to doubt, from all the transactions I have ever had with him,) the last time I saw him, stated to me that the mother of the heifer gave him 18 lbs. of butter per week, each and every week, in the month of June, last season. If any gentleman should see fit to call and examine this heifer, I would caution him not to be surprised if she produces more pounds of milk, in the month of January, than *she* weighs herself.

Asa G. Sheldon.

Wilmington, Jan. 24, 1855.

AGRICULTURAL SOCIETIES.

Hampshire County.

President—William P. Dickinson, Hadley.

Vice Presidents—Horace Henderson, Sunderland; Cotton Smith, Amherst; George Chandler, Belchertown; Alden C. Field, Leverett; Ezra Ingraham Amherst; Rodney Ayres, Granby.

Secretary and Treasurer—James W. Boyden, Amherst.

Hampshire, Hampden and Franklin.

At the meeting of this Society, held in Northampton, Jan. 3d, the following officers were elected for the coming year:—

Paoli Lathrop, of South Hadley, President; for Vice Presidents, Ahira Lyman, Westhampton; Chas. Fowler, Westfield; George Dickinson, Hadley; Wm. N. Clapp, Easthampton. For Treasurer, Benj. Barret, Northampton; for Secretary, John W. Wilson, Westhampton; Auditor, L. I. Washburn, Northampton; for member of the State Board of Agriculture, George W. Hubbard, of Hatfield.

Hampden County.

For President—Francis Brewer, of Springfield.

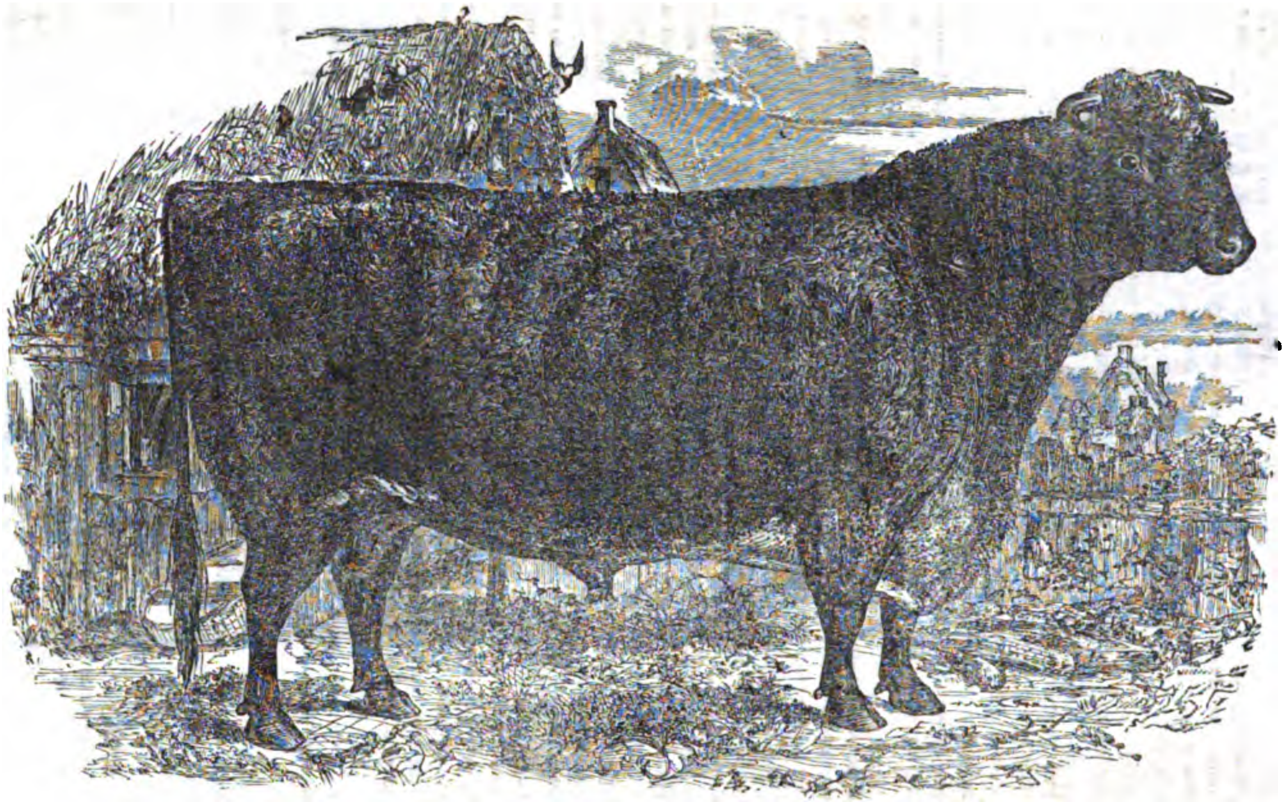
A. A. Allen, Secretary and Treasurer.

For the New England Farmer.

WEIGHT OF BONES IN ANIMALS.

Mr. Editor:—I wish to inquire if you, or any of your correspondents versed in animal physiology, can give the general average proportion which the bones of different animals bear to the whole weight of the animal. I have hitherto sought in vain for the fact in various works on Physiology; and if the subject comes within the domain of inquiries of interset to the agricultural community, I should be glad to learn the general fact; for it is not to be presumed that the question is one that can be answered very definitely, because the relative proportion must vary very much at different times, even in the same animal. Yours, &c.,

Worcester, Feb. 5, 1855. Phineas Ball.



SHORT-HORN DURHAM BULL.

Bred by Mr. Stephenson, *of Wolviston, Durham, England. His color is red.*

A SHORT LECTURE ON EXTRAVAGANCE.

"A little house well filled."

New England people pride themselves on their sober good sense, especially as applied to the art of living. They flatter themselves that they know how to make the most, and the best, of their condition, and means. And the southern or western man sometimes sneers at our *cute calculations* for saving our money. Yet we are bold enough to say, that in many particulars, New England men, aye, New England *farmers*, are the most extravagant people in the world. We intend to speak to that class of our farmers, who are owners of the farms they till, and who are ambitious to live in as good style as other people; not to the poor and destitute, but to the substantial, solid citizen farmer. "The farmer extravagant!" we seem to hear echoed and re-echoed, on every side. "Do we not work early and late? Do not our wives give their whole time to labor,—do we not constantly study economy, and talk economy, and save every cent that can possibly be saved?" Perhaps you do all this, our friend and brother.—Almost every man works too hard, in New England, and has too little leisure, and a great many men are continually preaching economy, and making their families uncomfortable, by complaining that their expenses are too great, and that they cannot afford to eat, and drink, and wear, what is proper and decent, when the fault is entirely their own. Let us name some of the particulars in which not only farmers, but most others, who have homes of their own, live extravagantly; that is to say, live beyond their means—live in a style that rather detracts from, than promotes, the comfort of the family.

Our houses are too large, and too costly. We have, usually, one or two rooms that are merely for show; a parlor, perhaps two, with folding doors between, that are only open for company, that are too nice for children to play in, too large to be warmed readily in winter, in short, like a dandy, too nice for anything useful. And then, often, there is a part of the house unfinished, a large attic, which might accommodate a small family, occupied now by a few old boxes of white beans, and a few bunches of catnip and pennyroyal, and some broken chairs and a cradle. This upper story was probably put on because you wanted a house as large as your neighbor's. Now a house should, in some measure, fit a family, as a suit of clothes should fit an individual. Although it is not, perhaps, always safe to count your children before they are born, and therefore the capacity of your house must often be by estimation, yet everywhere are houses going up, with the perfect understanding that a considerable part of the room is to be useless, either kept for an annual party, or to remain unfinished. If we, who plan and build such houses, would reflect upon it fairly, we should see that no rational man would entertain for us any more respect, for living in a house, which we do not fill, than for wearing a suit of clothes made for a person of twice our size. Let us have "a little house well filled," with no spare room except a chamber for our friends, and no lumber room of a garret, for ghosts and rats and mice to inhabit. The thousand dollars which even careful men generally expend, in building "a house to live in," merely to conform to fashion, or an architectural whim, costs the poor wife and children many a lecture upon penny economy which might otherwise have been spared.

And when you have built or purchased a house too large for your wants, the evil is but just commenced. Your large and numerous rooms require large and numerous carpets, and curtains, and sofas, and other adornings. But this is not all, nor the worst of it. The house and the furniture must be taken care of—swept and dusted daily, and scrubbed and scoured Spring and Fall, when *house-cleaning* time comes round. You must either pay for *help* to do all this, or what is perhaps more common, allow additional burdens to fall on your wife, who has already a ceaseless round of cares. A sensitive, or even a just man, should see that, in this land, where servants are an expensive luxury, at best, his wife have comfort and leisure, and a selfish man may soon learn that he cannot lead a peaceful and happy life with a woman who is over-run with hard work and family cares. We think, if our reader himself is not open to censure in the particulars named, he may find plenty of his neighbors to whom our remarks will apply.

And then, again, we are extravagant in our household *furniture*. The ladies must come in for a share of our lecture on this topic. The furniture of a house is mainly for use and comfort. Carpets and sofas and chairs and tables are chiefly designed to promote warmth and quiet and physical enjoyment in some way. A carpeted floor is warmer in winter, and the children make less disturbance on it than bare boards; and besides, they require much less labor to keep them in nice order. Let comfort then be regarded, principally, in selecting furniture. We live in the country, and it is not only unnecessary, but absolutely in bad taste, to furnish our houses like fashionable saloons in the city. It indicates no refined taste, only that we have, or have *had*, money, if our rooms are filled with tapestry and marble and black walnut. Mr. Rosewood, the furniture man, will fit out your house in magnificent style, if you will only furnish the cash.—He knows the fashions better than you, and is entitled to all the credit of the show, after all.

But a nice perception of the fitness of things, which is good taste—the faculty of producing *harmony* between the occupants of the house and the house itself, and between the house and its furniture and surroundings, this is what you do not buy at the upholsterers, this is beyond price, and a matter, madam, in which it is *your* province to excel. Let the furniture say, as plainly as things can speak, this house is for the comfort of those who live *inside* of it, and not for mere callers and strangers. This carpet is not too good for the children to roll on, this arm-chair will not be soiled by being occupied, and the bright sunlight may visit the inmates, in the morning, bringing health and cheerfulness, without fear that it will fade the brilliant colors of the silk and velvet. If when your house is built, and thus furnished, you have money to spare for articles of mere taste and luxury, the world is full of books and pictures, and a thousand other things, which will afford to a refined and cultivated mind far more rational enjoyment than a whole warehouse of gilded mahogany.

On the whole, we think the ambition which is so common among all classes, to live in large houses, elegantly furnished, is leading us daily into embarrassments and discomforts, which as a thoughtful and rational people, we ought no longer to suffer.

AMERICAN POMOLOGICAL SOCIETY.

Through the polite attention of the President of the Society, the Hon. Marshall P. Wilder, we have before us a copy of the proceedings of the third session held in the city of Boston on the 13th, 14th, and 15th of September, 1854. We copy below, from the President's Address at the opening of the Session, that part of it which relates to *the production from seed of new varieties of fruits adapted to particular localites, or to general cultivation.* Other extracts will be given under the head *Horticulture,* in our next number, together with notices of Reports from different States on the subject of growing and preserving fruits.

"The immense loss to American cultivators, from the importation of foreign varieties, in many instances not well adapted to the countries from which they come, and often still less adapted to our soil and climate, suggests the importance of raising from seed, native sorts which, in most instances, possess peculiar advantages. It is now generally conceded that the trees and plants of a given country, like its aboriginal inhabitants, will flourish better at home than in most foreign localities.

We rejoice that public attention has been turned to this subject by some of our horticultural journalists, and that many cultivators and amateurs are engaged in this interesting and promising department. The success which has crowned their exertions affords great encouragement to perseverance. Witness, for instance, thirty or more varieties of the cherry, by Dr. Kirkland, of Ohio, which appear adapted to our eastern climate, and some of them of superior excellence. Witness the numerous varieties of the raspberry, by Dr. Brinckle, Ex-President of this society, of which, some have endured, without covering, the severities of the last winter in the New England States, and which also promise to be valuable contributions to American pomology. In addition to these, how many new varieties of the apple, the pear, the plum, and the grape have recently been added to the list of American fruits. How many new and excellent varieties of the strawberry have appeared since the introduction of Mr. Hovey's Seedlings.

These are sure indications of the success which will reward future efforts to obtain valuable and native varieties of fruit; and they point to the fulfilment of the prediction of the celebrated Van Mons, "that the time will come when our best fruits will be derived from seedlings." He gives the following sage counsel to his correspondents, to whom he had sent trees: "*Sow your seed and persevere without interruption, and you will obtain even better fruit than mine.*"

Among pioneers in this department, I am happy to notice a gentleman, (now residing among us) the pupil and friend of Van Mons, one who has adopted our country as his future home, and who has already transplanted to our soil many thousands choice seedlings of the pear which have come into his possession from the collections of that gentleman and the celebrated Esperen.

As to the best method of producing fine varieties from seed, the opinions of distinguished pomologists are not uniform.

Duhamel, among the French, from causes which seem to us irreconcilable with nature and experience, entertained serious doubts of the practicability of any method for obtaining new and valuable varieties from seed, especially of the pear, because he had tried various experiments without success, for fifty years.

Dr. Van Mons, of Belgium, instead of saving the seed of the *finest* varieties, selected those of inferior sorts, upon the principle that a kind having arrived at the highest state of perfection, must deteriorate, while an inferior one would improve by successive reproductions. He also held that hybridization tended to degeneracy and imperfection. Thus he assumes the doctrine that a perfect variety necessarily deteriorates, and also overlooks the fact observed by other distinguished men, that the improvement or deterioration of which he speaks, may result from natural impregnation by the pollen of other varieties conveyed by the air or insects, and therefore that the seed of a good variety may produce either a better or a worse, and that of a bad either a worse or a better.

Mr. Knight's system of obtaining new and improved varieties, depended entirely on hybridization or artificial impregnation so lightly esteemed by D. Van Mons. This is somewhat difficult to practice on account of natural fertilization by insects and the wind; but it has the merit of depending on a truly philosophical principle, and with very particular attention may yet prove as available for the improvement of our fruits as it has for the production of fine varieties in the vegetable and floral kingdom, or as the corresponding principle has in the crossing of the breeds of domestic animals.

The results of Mr. Knight's experience disprove the tendency to degeneracy, inasmuch as many of his fruits, obtained by hybridization, are among the most durable and hardy varieties, as the Eyewood and Dunmore Pears; the Black Eagle and other Cherries.

Many cultivators, as Esperon, Bivort, Berckmans, and others, both in this and foreign countries, have sown seeds in variety, and have obtained some valuable sorts. But I am confirmed in the opinion, that the best means of producing new and excellent varieties, suited either to general cultivation or to particular localities, is to *plant the most mature and perfect seed of the most hardy, vigorous and valuable sorts;* on the general pathological principle that like produces like, and upon the conviction that immature seed, although the embryo may be sufficiently formed to vegetate, yet not having all its elements in perfection, it will not produce a vigorous and healthy offspring. Dr. Lindley, commenting upon this practice, justly remarks—"All experience shows that in every kind of created thing, be it man or beast, or bird, the mysterious principle, called life, remains during the whole period of existence what it was at first. If vitality is feeble in the beginning, so it remains. Weak parents produce weak children, and their children's children are weaker still, as imperial dynasties have sadly shown." With him we believe this theory as applicable to the vegetable as to the animal kingdom. May not a disregard of this doctrine account for the great number of feeble, sickly, early defoliated trees often found in our grounds by the side of those that are vigorous, healthful, and persistent in foliage? Is not the theory we advocate as important in the production of fruit trees, as in the raising of cereal grains? The skilful agriculturist saves the best seed of his various crops, and selects the best animals from his flocks and herds for breeders. Why should not this law of reproduction regulate the practice of the pomologist as well as of the farmer? Has the All-wise and Infinite enacted several laws where one would subserve the purpose?

To the doctrine of Van Mons, and other distinguished writers, respecting deterioration by age, and after a variety has reached its perfection, there seem to be some exceptions. From the accounts of oriental travellers, may we not believe that the grapes of Eschol are as perfect now as when the chiefs of Israel plucked their rich clusters three thousand years ago?—and that the same variety of the fig, the olive, and the pomegranate are as perfect in Syria to-day as in the period of David and Solomon? It is worthy of inquiry whether the native grapes, on the banks of our rivers, have deteriorated since the day when the red men of the forest refreshed themselves with fruit from those vines, and whether the orange, the lemon, the banana, and the fruits of southern latitudes, evince any more signs of decay than they did centuries ago? In a word, whether this doctrine of deterioration is as applicable to the *native* as to the foreign fruit of a country?

Why may we not expect to obtain natural varieties of the apple and other fruit as durable and far more valuable than those which have passed their second centennial, as the Endicott and Stuyvesant Pears? From meteorological or other causes, which we do not at present understand, particular varieties may deteriorate in a given locality, for a season, and afterwards revive; or, they may show signs of decay in one locality and flourish well in others not very remote, as the White Doyenne, which has been considered, for many years, by some in this vicinity, on the decline, while it is perfect in several places in Maine, New Hampshire, Vermont, and other States. Fruit-bearing may exhaust the vital energy of the tree, and hasten decay, but still the variety may remain. We have, among fruit trees, no example of longevity equal to that of the new Taxodium, found in California, supposed to be three thousand years old. Our object is not to controvert the opinions of those who believe in the running out of varieties, whether their duration be limited to one hundred or one thousand years, but to enforce the importance of raising new varieties from seed, especially adapted to our own location.

NEW HAMPSHIRE AGRICULTURAL SOCIETY.

We have received the volume of the *Transactions of the New Hampshire Agricultural Society, for* 1855. This volume is well got up, and filled, from beginning to end, with interesting facts and suggestions. The various reports, essays and communications which it contains, partake in a very marked degree the character of the people of the Granite State; they are eminently practical. The volume contains copious extracts from the speeches made on the occasion of the annual meeting. These speeches were not dull, prosy affairs—speeches made against time—but they exhibit a life and fervor that must have stirred the souls of those who were fortunate enough to hear them. The affairs of the society are evidently in the hands of earnest, working men—men who have undertaken the not easy task of making their mark on the hard soil of New Hampshire. When such men rest from their labors, "their works do follow them."

The Granite Farmer.—This paper—the only agricultural paper, we believe, in New Hampshire—is a large and handsome sheet, and published weekly at Manchester, at $1,50 per annum. It takes earnestly hold of the great work to be done; has active and intelligent Editors, and practical, judicious correspondents. It would not only be a matter of profit, but it seems to us to be *the duty* of every farmer in New Hampshire to do something to sustain it by subscription and contributions to its columns; and when they have done this, they will be all the better able to take another paper out of their own State. Our New Hampshire friends are holding some of the most useful meetings that are taking place in New England, and we only regret that our space will not permit us to spread their reports before the reader. Hillsboro' county gives examples worthy of imitation by all.

For the New England Farmer.

THE BRAIN FEVER.

Of all fevers to doctors known,
The worst infects the brain;
And he who has this dread disease,
Is seldom well again.

Although the patient long may live,
Nor be confined to bed;
Yet ever and anon you'll say,
"There's fever in his head."

Sometimes he'll rave for shiny gold,
From Sacramento's breast;
And oft he'll start for Oregon,
To get him farther West.

In Yankee land, where summer's hot,
And winter cold and drear,
This fever *runs* in madness on,
Through each successive year.

Some spend their silver and their gold
To buy Shanghai hens,
While others choose the Bolton Grey
To fill their fancy pens.

But the worst form this fever takes,
Among the farmer band,
Is purchasing special manure
To fertilize his land.

For he can buy *Guano* cheap,
If purchased in the fall;
And as for farm-yard, wet manure,
It will not pay to haul.

No compost heaps are round his barn,
No muck spread in his yard;
No wonder then that oft he thinks
The farmer's lot is hard.

I laid me down and took a nap,
Nor woke for ten long years;
The farmer sat with drooping heart,
His wife was bathed in tears;

A poor old cow, with stinted calf,
Was watching round the barn;
A pig was squealing in the pen
To get *one* ear of corn.

His house did sadly need repair—
The panes were stuffed with rags;
His barn-yard shed was covered o'er
With old *Guano bags!*

The farmer's fever now has turned,—
A ruined man is he;
For if he should survive, he'll show
Signs of insanity.

SAT-SAT-SAK-SIS.

Westford, Ct., Jan., 1855.

VERMONT STATE AGRICULTURAL SOCIETY.—At the annual meeting held at Middlebury, on the 11th inst., the following gentlemen were elected officers:—*President*—Fred'k Holbrook, of Brattleboro'. *Vice Presidents*—Edwin Hammond, Henry S. Morse, Henry Keyes, Solomon W. Jewett. *Corresponding Secretary*—J. A. Beckwith, of Middlebury. *Recording Secretary*—Charles Cummings, of Middlebury. *Treasurer*—Edward Seymour, of Vergennes.

For the New England Farmer.

PRODUCTION OF MILK.

EXTRACTS FROM AN ESSAY READ BEFORE THE CONCORD FARMERS' CLUB.

BY MINOT PRATT.

* * * In the little investigation I have been able to give this subject, nothing has been more strongly impressed on my mind, than that the wisdom of the fathers, and of the brothers too, as exemplified in theories of agriculture, needs to be very carefully sifted by every one, before he makes it a rule for his own government. And even theories which, in their origin, have a strong foundation in truth, and as applied to the circumstances that gave them birth, are really and indisputably sensible and valuable, must to a great extent be modified to adapt them to the peculiarities of our own circumstances. For instance, in the matter of milk: Mr. A. may turn his attention to the making of milk for the Boston market. He selects a stock of cows that will give the largest quantity; he gives such feed as will cause the milk to flow like *water*, I almost said—at any rate, it flows abundantly, and of such quality as ought to satisfy any city customer, even the most enthusiastic admirer of *thin* milk, without any addition of the fragrant waters of the Cochituate. This man succeeds in his object. His stock, his mode of feed, do what he wants them to do, and he can strongly recommend them to his friends. Now Mr. B. comes into the neighborhood, intending to turn his attention to the making of *butter*. He has read of Mr. Somebody who obtains a pound of butter from 4 quarts of milk. He thinks to himself, "What man has done, man may do." He becomes acquainted with the great flow of milk from Mr. A.'s stock, and proceeds at once to get some of the same breed, and feeds in the same way. The milk comes, is daily put away in pans of the newest style, in a milk room built after the most approved pattern. But the cream is thin; and as to the butter, dividing the number of quarts of milk by 4 does not give the number of pounds correctly. This man does not succeed. His stock, his system of feeding, are not adapted to accomplish his intentions, and they are not profitable to him. * * *

But the question of chief importance to us is, by what means available to common farmers, can the quantity of milk be increased, or its quality improved, so as to make its production more profitable. I shall not meddle with the question, which is the best breed of cows? Where the doctors disagree so widely, I may be excused from offering an opinion. But I have no hesitation in saying, get the best cows you can, of whatever breed, even if you are obliged to pay a good round price for them. A cow that will give an average of seven or eight quarts a day for the whole year, on feed that costs $60, is better worth $75, than one that gives but 4 quarts a day for the year is worth $25, though it may not cost more than $40 to keep the latter. It must be evident, however, that the market cannot be supplied from cows of the first class only; and it behooves us to inquire what sort of feed given to such cows as we can get, will most economically produce milk. From the best guesses I can make, I believe a cow will eat about two tons of English hay during the winter. At present prices, this is worth nearly $40. The expense might be considerably reduced by feeding for a portion of the time with fodder of less market value, in the case of cows going dry. It might not be profitable, on the whole, to reduce the quality of their feed very much; and if we allow them one ton of English and one ton of meadow hay, and thus bring the winter feed to a cost of about $30, perhaps we make it as low as a wise economy will permit. Then add the summer feed, and the annual cost of keeping a cow on hay and grass will not come much short of $40. Possibly it might slightly exceed that sum. An average of 4 quarts of milk a day for the whole year, or 1460 quarts, at 3 cents a quart, will pay $43,80. This would allow but $3,80, for interest on the value of the cow, and for depreciation,—and the manure is supposed to pay for the care of the animal. So, to make the business profitable, we must either receive a higher price for the milk, or charge ourselves with a lower price for the hay. For a winter cow, I presume the increased price of milk will pay the necessary increase of cost for feed, so as to bring the profit or loss to about the same figure. If you can get cows that will give more milk, then of course you may make a more decided profit; but I believe more cows come *under* this estimate than over it.

In the economical manufacture of milk, it is a matter of great importance to have a warm barn. My own is not of this character; and I consider my milk-pail a pretty good thermometer. A sudden change to severe cold weather, very perceptibly diminishes the yield of milk; and a change back to mild, increases it again.

I have no doubt that a liberal supply of the roots, carrots, parsnips, the different varieties of beets and turnips, would be a means of economy in feeding cows. With these, not only will less hay be eaten, but cows will have an appetite for hay of a poorer quality than they would otherwise willingly accept. Though some of these roots are undoubtedly more nutritious than others, I believe it better to have a variety, and not confine the animal to any one kind. It was wisely said of old, "Man shall not live by bread alone;" and the spirit of the remark may be as applicable to the physical well-being of cattle, as to the spiritual well-being of man. For the production of milk, I have not much faith in carrots; but there seems to be strong testimony in favor of parsnips, beets and turnips. A hundred bushels for each cow would save much hay, besides adding largely to the quantity of milk We often hear that turnips will make themselves remembered in the milk; but I have fed them freely this winter—a half bushel a day—and have not perceived any turnip flavor either in the milk or butter. Years ago, I was told that if turnips were fed to the cow immediately after milking, the flavor would pass away before the next milking. But I have given them at different hours, and the same absence of flavor has resulted. When quantity of milk is desired, I am disposed to believe that turnips and beets of the different varieties are preferable; to improve the quality, I would give carrots and parsnips. But in this, I do *not* desire to be understood as speaking with any great degree of authority, as one who knows. It seems to me highly desirable that a series of thorough and carefully conducted experiments should be tried by some competent person, who would not be hampered by any previous theories of his own or of others, to ascertain as accurately as possible,

1st. How much good English hay will it take to keep a cow, giving milk for the six winter months?

2. Is it more expensive to feed partly on grain, cob-meal, shorts or oil meal? If so, is the increase of milk sufficient to pay the increased expense?

3d. Can either, or a variety of the root crops—carrots, parsnips, beets, turnips, be raised and profitably used for a feed to milch cows?

4th. Which of these roots, in proportion to its cost of production, will produce most milk?

5th. Which will produce the richest milk?

6th. The comparative economy of different feeds.

In regard to the *summer* feed of cows, it seems to be highly desirable for those whose pastures are not to be relied on for the whole season, that preparation should be made by some cultivated crop to furnish an ample supply of green food during the season, which is so likely to cut short the feed on our upland pastures. For this purpose, on account of its great productiveness and ease of culture, I know of nothing superior to the Southern flat corn. Perhaps oats, barley, clover, of equal weight, would give more milk; but so much larger crops of the corn can be obtained, that it seems to be entitled to a decided preference. But I would for summer as well as for winter, have as great a variety as possible; for cows as well as men, dislike to be confined for a long time to one article of diet, however palatable it may be at first. In sowing corn for this purpose, judging from my own limited and imperfect experience, I am inclined to believe that too much seed is often used. Where the plants are very much crowded, the stems lack that rich sweetness which we find in them when they have more room, and a freer exposure to the sun and air; and my own cows more readily eat the sweet coarse stems that have had room enough, than the smaller but insipid stems of the more crowded, shaded plants.

Concord, Feb., 1855.

For the New England Farmer.

HOW TO MAKE GOOD BUTTER IN FALL AND WINTER.

Scald the milk when strained, and keep it from freezing as little as possible until the cream is taken off. When churned, warm the cream as warm as new milk, and grate one middling-sized orange carrot, for one gallon of cream, into one pint of new milk, and strain into the churn with the cream through a cloth; when churned, the butter will be nearly as good as when made in warm weather. O. S.

Woodstock, Vt., Jan., 1855.

For the New England Farmer.

LUNAR INFLUENCE—No. 1.

Friend Brown:—I have for a long time been desirous to see the influence of the moon upon terrestrial objects, written out and explained for the benefit of those who are ignorant of it. Failing, however, to see an article upon that subject, and thinking instruction in a branch of knowledge so intimately connected with vegetation, and with many of the manipulations of husbandry, as this is *said* to be, should be circulated as widely as possible amongst farmers, I have undertaken to point out some of the *more noted* effects of our satellite, based upon the "observation" of certain *very observing* individuals.

I will first notice its effects upon vegetation, and upon some kinds of farm labor. In spring it is asserted that sap flows most freely at the time of full moon, and sugar-makers are duly notified to prepare for a *good run of sap "on the full."* Peas must be sowed "on the full moon," though some people think it best to sow them on *the earth*. Onion and most other kinds of garden seeds must be sown on the *increase* of the moon, to insure a plentiful crop, and all kinds of roots and herbs must be gathered before the *full*, if you would preserve their medical properties, and keep them from shrinking by drying. Apples must be picked on the *decrease* of the moon, otherwise bruised places will rot. Some say wood and timber must be cut at the time of full moon in midsummer to render it durable; others say that fuel cut in mid-winter is best, at any rate the *moon* must be consulted. A neighbor informs me that he once knew a man who had a particular time in the moon in which to *build rail fence!*

It is said a potential influence is also exerted upon the condition of animals intended for meat. If you would have your pork "spend well," kill your hogs upon the *increase of the moon*, otherwise it will shrink in cooking, and the fat will all *try out*. Admitting this, would it not be well for the Legislature of each State to enact a law requiring all people who raise pork for market, to kill their hogs during the *first and second quarters of the moon?*

Again, if you have bushes or thistles to cut, it must be done at the time of full moon, and you are *certain to destroy them*.

All these, and many more *whims* of a similar nature, are unworthy of belief in this enlightened age, yet there are those who pertinaciously adhere to the tradition of their ancestors,—who believe in *signs*, *wonders* and *witches*, only because they have no inclination to learn a few of the simplest laws of Nature.

Now, ye observing sages, answer, if ye can, a few plain questions. In what *manner* is this lunar influence exerted on plants? If they are more easily killed by cutting at the time of full moon,—which I doubt,—why is it? *Does* the full moon cause the sap to flow more abundantly in spring than it does at the change or quarter? If so give us the reason. We all know it sometimes fails, hence *moonshine* is not a *certain cause*. Which has the greater influence on *meat*, the *moon* or the *food* upon which the animal is fattened?

In my next I shall notice the lunar infleuce upon the weather, referring to the popular belief, enumerating some signs, and producing statistics to *disprove* their validity. L. Varney.

Bloomfield, C. W., 1855.

EXTRACTS AND REPLIES.

The following letter is from a little boy only *ten* years of age, in Waukesha, Wisconsin, and we give it just as he wrote it, with the exception of adding the heading, and a single letter in one of the words. This boy, and the sister he speaks of, are under the right training, to become useful and distinguished persons. We wish there were more like them.

AMERICAN CRAB APPLE TREE.

Mr. Editor: — Some time since I saw in the *N. E. Farmer* an engraving of the American crab apple, with a description. We have a great many in our woods; my father says they do not grow in New England.

It is a small but handsome shaped tree, and would look pretty in a door-yard. The flowers are beautiful, large, pink, and so sweet they perfume the air. The fruit is larger than the Siberian crab. It does not get ripe till mid-winter, then it is a greenish yellow. They can be grafted on a common apple seedling.

If any one would like one of these pretty trees, I will send them some grafts, if they will write me a plain direction; and if they enclose a stamp I can prepay the postage for them. The scions ought to be sent soon.

My sister, who is younger than I, wants to write you how to make nice sauce of the apples, as she has helped me prepare them. But she had better wait till you get the apples.

My sister and I have a nursery and garden, and we are trying to raise new kinds of fruits. I learned to bud last summer, and will learn to graft this spring. I like to read anything in the *Farmer* I can understand.

Waukesha, Wis. Henry W. Hanford.

HOW TO RAISE CARROTS.

I wish to inquire about raising carrots. I have a lot of sandy loam, which I intend to have planted to carrots, turnips, &c., the coming season. I purpose to put on the lot, (about an acre,) 100 bushels leached ashes, 4 cords rich manure, if I can get it; but if not, I think of trying guano with the ashes. I would like to get your views respecting it,—how much guano should I put on, and how shall I apply it to the soil? I wish you would give directions as to the management of said crop throughout, as fully as you can.

Scituate, Jan., 1855. Jeremiah Potter.

Remarks.—Drain thoroughly, if water ever stands upon the land, even if it is a "sandy loam." Manure the surface before plowing as liberally as you can with such barn manure as you have, and plow it under eight or ten inches; then add fine composted manure, or not having that, 300 lbs. of guano per acre, pulverized and sown broadcast, and cultivate, harrow and rake until the surface is fine and pretty smooth. Sow with a seed sower, having a boy hitched on forward to assist, as you will sow an acre in about half the time with the aid of the boy, and get the seed in at a more uniform depth. Make the row 16, 18 or 20 inches apart—in our own practice we think 16 inches about right. As soon as the plants appear—or even before, if any weeds are seen—pass between the rows with the *wheel hoe*, and when they are an inch or two high, thin them in the row so that they will stand, three or four inches apart.

The plants now being up and thinned, your success will depend first upon the condition in which you placed the land before sowing, and, secondly, upon the manner in which you tend the crop. If weeds are entirely kept down, and the surface is stirred as often as once in every ten or fifteen days—especially if the season is a dry one—you will rarely fail of obtaining at the rate of from *six* to *twelve* hundred bushels per acre. The crop will not depend so much upon the *season* as upon the *plowing*, *manure* and attention you give it yourself.

The use of the *wheel hoe* will save half the labor of cultivation which the old mode with the common hoe required.

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TENACITY OF TURKEY LIFE.

When I lived at my father's, some forty years ago, they had a turkey blown from her roost on a tree, in a snow storm in *December*. She did not thaw out of the drift under which she was covered till *March*, but came out alive, lived, and raised up a good brood that year!

THOMAS GOODWIN.

South Berwick, January, 1855.

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VITALITY OF GARDEN SEEDS.

Will you state in your columns what garden seeds will come up when they are more than one year old? D. CHILDS.

REMARKS.—Most seeds will vegetate when more than a year old, if they were gathered at right seasons, and properly preserved. Parsnip seeds quite often fail, but we have used those two or three years old, when they came up well. Garden seeds should be gathered a little previous to full ripeness, and a good way is to cut up the plants—the best parsnip, carrot and onion, for instance—and hang them in sheltered places for a week or two, when the seeds will become plump and perfect. Then they should be rubbed out, and placed in boxes or bags, and their names and date of raising legibly marked upon them. If not all used the first year, you will then know their age. Seeds thus put up should be placed in some dry place, of as equal temperature as is convenient—such as a closet in the centre of the house, or in chests in the attic, chamber, or workshop, where they would be quite likely to remain good for many years.

AMERICAN POMOLOGICAL SOCIETY.

In our last, we gave several paragraphs from the opening Address of the President of the American Pomological Society, at its session in September, upon the *production of new varieties of fruit from seed.* We continue the subject by presenting some brief extracts from the same source, upon *the arts of cultivation*, and *the preservation and ripening of fruit.*

"The absolute necessity of proper preparation, and deep and thorough cultivation of the soil, especially for certain fruits, is now generally admitted, though regard must always be had to the natural activity in the sap of the species, and to the degree of fertility of the soil. Surely it would be unwise to apply the same cultivation to the peach and the cherry, as to the apple and the pear, or to treat any of these on new and fertile grounds as in old and exhausted lands.

The influence of soils is remarkable. But by these we do not mean the identical spot, the artificial bed in which the tree stands; for, in time, the roots take a wide range in search of food. Some fruits are good in nearly all places; others, only in their original locality. Some succeed best on light, loamy, or sandy soils; others, in stiff clayey soils. In the latter, many pears, for instance, the Beurre Bosc and Napoleon, are astringent, while in the former they are entirely free from this quality. The Beurre Rance, in England and in some parts of France, is the best late pear. So it is, also, in some parts of the soils in Belgium; while with others, and with us, it is generally inferior.

The flavor of fruit is much influenced not only by soil, but also by climate and meteorological agents. Thus, in a cold, wet and undrained soil, disease commences in the root; and, as a natural consequence, the juices of the tree are imperfectly elaborated, and unable to supply the exigency of the fruit. Even injurious substances are taken up. A plum tree has been known to absorb oxide of iron, so as not only to color the foliage, but also to exude and form incrustations on the bark, and finally to kill the tree. As an instance of climatic agency, it is sufficient to report the fact, that out of fifty varieties of American peaches grown in the gardens at Chiswick, England, only two were adapted to the climate.

In relation to *appropriate fertilizers for fruit trees*, a diversity of opinion prevails. All agree that certain substances exist in plants and trees, and that these must be contained in the soil to produce growth, elaboration and perfection. To supply these, some advocate the use of what are termed *special* manures; others ridicule the idea. We submit whether this is not a difference in language, rather than in principle; for by *special* fertilizers, the first mean simply those which correspond with the constituents of the crop. But are not the second careful to select and apply manures which contain those elements? And do they not, in practice, affix the seal of their approbation to the theory which they oppose? Explode this doctrine, and do you not destroy the principle of manuring and the necessity of a rotation of crops? Trees exhaust the soil of certain ingredients, and, like animals, must have their appropriate food. All know how difficult it is to make a fruit tree flourish on the spot from which an old tree of the same species has been removed.

The great practical question now agitating the community is: How shall we ascertain what fertilizing elements are appropriate to a particular species of vegetation? To this, two replies are rendered. Some say, analyse the crop; others, the soil. Each, we think, maintains a truth; and both together, nearly the whole truth. We need the analysis of the crop to teach us its ingredients, and that of the soil to ascertain whether it contains these ingredients; and if it does not, what fertilizers must be applied to supply them. Thus, by analysis, we learn that nearly one-quarter part of the constituents of the pear, the grape and the strawberry, consists of potash. This abounds in new soils, and peculiarly adapts them to the productions of these fruits, but having been extracted from soils long under cultivation, it is supplied by wood-ashes or potash, the value of which has of late greatly increased in the estimation of cultivators.

There is but one other topic to which I will advert,—*the preservation and ripening of fruit.*

Much progress has been made in this art within a few years, and important results have been attained. The principle has been settled that the ripening process can be controlled. Autumnal fruits have been kept and exhibited the succeeding spring. We have seen the Seckel, Bartlett, and Louise bonne de Jersey pears in perfection in January, and even later. The maturity of fruits depends on saccharine fermentation. This is followed by other fermentations, as the vinous and ascetous. To prevent these, and preserve fruit in all its beauty, freshness and flavor, the temperature must be uniform, and kept below the degree at which the fermentation or the ripening process commences. Our remarks, like our experience, have special regard to the apple and the pear, though the principle is doubtless susceptible of a more extensive application. Fruits, designed to be kept for a considerable time, should be gathered with great care some days before the ripening process commences, especially summer pears. A summer pear ripened on the tree is generally inferior. In respect to the latter, Mr. Barry, editor of the *Horticulturist*, has so aptly expressed my own sentiments, that I use his language. 'The process of ripening on the tree, which is the natural one, seems to act upon the fruit for the benefit of the seed, as it tends to the formation of woody fibre and farina. When the fruit is removed from the tree, at the very commencement of ripening, and placed in a still atmosphere, the natural process seems to be counteracted, and sugar and juice are elaborated instead of fibre and farina. Thus, pears which become mealy and rot at the core when left on the tree to ripen, become juicy, melting and delicious when ripened in the house.' Various fruit-houses have been built, both in this country and in Europe; and experience shows that their object can be attained only by a perfect control of the temperature, moisture and light. Hence, they must be cool, with non-conducting walls, or with exterior and interior walls, or a room within a room. Thus the external atmosphere, which either starts the saccharine fermentation or conveys the agents which produce it, can be admitted or excluded at pleasure. It is possible, however, to preserve the temperature at so low a degree and for so long a time as to destroy, especially with some varieties of the pear, the vitality, and therefore all power, ever to resume the ripening process. Experience proves that for the common varieties of the apple and pear, about forty degrees of Farenheit is the temperature best suited to hold this process in equilibrium.

The proper *maturing* of fruit thus preserved, demands skill and science. Different varieties require different degrees of moisture and heat, according to the firmness of the skin, the texture of the flesh, and the natural activity of the juices. Thus, some varieties of the pear will ripen at a low temperature and in a comparatively dry atmosphere, while others, as the Eastern Beurre, are improved by a warm and humid air.

Some varieties of the pear, ripening with difficulty, and formerly esteemed only second rate, are now pronounced of excellent quality, because the art of maturing them is better understood.

But so many experiments have been tried, or are in progress, and so much has been written on this branch of our subject, that I need not enlarge except to say that the art of preserving and ripening fruit in perfection, involves so much scientific knowledge as to require great attention and care; and, until its laws are more fully developed, must be attended with considerable difficulty. I therefore commend it to your special attention, as second in importance only to the raising of new varieties.

But I will not prolong these remarks. Your own observation and experience will readily suggest other felicitous illustrations of the principles to which I have adverted. I will merely re-affirm what our friend Thomas has so justly asserted, 'that fruit and fruit trees, in all stages of their existence, need care and attention.' I will add, also, that here, as in every other department of cultivation, *eternal vigilance is an indispensable condition of success.*"

IMPORTANCE OF FOREST TREES.

[The following is an extract from a paper read by Dr. Hawks, before the Geographical Society of New York:]

"Civilization uses a vast amount of wood, although for many purposes it is being fast superceded; but *it is not the necessary use of wood that is sweeping away the forests of the United States, so much as its wanton destruction.* We should look to the *consequences* of this. Palestine, once well-wooded and cultivated like a garden, is now a desert—the haunt of Bedouins; Greece, in her palmy days the land of laurel forests, is now a desolate waste; Persia and Babylon, in the cradles of civilization, are now covered beneath the sand of deserts produced by the eradication of their forests. It is comparatively easy to eradicate the forests of the North, as they are of a gregarious order—one class succeeding another; but the tropical forests, composed of innumerable varieties, growing together in the most democratic union and equality, are never eradicated. Even in Hindostan all its many millions of population have never been able to conquer the phœnix-life of its tropical vegetation. Forests act as regulators, preserving snow and rain from melting and evaporation, and producing a regularity in the flow of the rivers draining them. When they disappear, thunder-storms become less frequent and heavier, the snow melts in the first warm days of spring, causing freshets, and in the fall the rivers dry up and cease to be navigable. These freshets and droughts also produce the malaria which is the scourge of Western bottom-lands. Forests, although they are first an obstacle to civilization, soon become necessary to its continuance. Our rivers, not having their sources above the snow line, are dependent on forests for their supply of water, and it is essential to the future prosperity of the country that they should be preserved."

FIFTH LEGISLATIVE AGRICULTURAL MEETING.

Reported for the New England Farmer,

BY WILLIAM W. HILL.

No. 5, in the series of agricultural meetings, was held in the Representatives' Hall, at the State House, on Tuesday evening, 13th inst.

Sanford Howard, Esq., of the *Boston Cultivator*, presided, and opened the discussion of the evening. After some remarks in regard to the influence of domestic animals, on civilization, their native localities, &c., he proceeded to speak of the fact that our domestic animals, not being native to the soil, but brought over by the colonists from various localities, presented a miscellaneous character at the outset, and the want of skill in the propagation has led to great diversity. In this respect, however, proper attention is beginning to be devoted to the subject. Two or three questions had been put into his hands, the writers requesting his views thereon. One was, "What are improved breeds of cattle, and how are they produced?" He would reply that a breed of cattle may be said to be improved when the standard is raised in regard to any particular quality,—as the yield of more milk or flesh. They may be improved in one quality and lose in another; as an animal may be made to yield more abundantly of milk, but it will decrease proportionably in flesh, and the flesh may be increased, but the milk will be diminished at the same time. The object should be to work for a particular object, and if the animal deteriorates in some other respects, no matter. The means to be used are very simple, although much judgment is requisite in the use of them. It consists in propagating from those animals which possess in the highest degree the qualities we desire. Another question asked was, "What is breeding in-and-in?" While some applied the term only to animals distantly related, he conceived the only true idea of the matter to be that it applied to creatures of the same blood. The consequences of breeding in-and-in he believed might be either good or bad, and depended wholly on the skill of the breeder. As proof that breeding in-and-in is not contrary to nature, he referred to birds, the buffalo, &c., in a wild state. It is known that they breed "in-and-in" constantly, and yet no deterioration takes place. He had known geese to be propagated in this way for forty years, and not the slightest depreciation in size, quality or feather was visible in them. Still, cases could be cited where breeding in-and-in had produced bad results; yet he thought they might be satisfactorily attributed to imperfections in the parent stock. It is only necessary to select perfect specimens. A third question was, "Are small lungs an advantage in cattle designed for fattening?" This idea might seem perfectly prepesterous, but the theory has been broached by some who professed to raise cattle on scientific principles. The theory is that, with small lungs, the animal cannot throw off so much carbon, and therefore more of it is retained to be converted into fat. This is a great fallacy, for when the organs of the creature are most fully developed and healthiest, then is fat generated the fastest.

Mr. Brooks, of Princeton, followed, and remarked that he did not profess to have much knowledge in regard to raising cattle, yet from what experience he had had, he was of opinion that breeding in-and-in was a very poor system. He had succeeded badly in all efforts in that direction. It might have been owing to defects in the animals selected, but he could discover none at the time. He agreed entirely with the chairman in regard to the effect of contracted lungs in fattening cattle. Good health is essential to fattening stock, and this could not be maintained without good lungs in cattle any more than in men. The small lungs of Durham cattle were in his mind a serious drawback upon their value. They are more liable to disease than native or other breeds, in consequence of this peculiarity, and they do not work so well, not having so good wind. He thought the State should take in hand the subject of making experiments in regard to cattle. The climate he considered had a good deal to do with the class of animals which we need to raise. Perhaps native stock would be the best to rear from, as they are acclimated, while foreign breeds cannot bear our climate, and consequently deteriorate. In order to obtain a desirable race of animals, the best specimens among us should be selected. It would take many years to accomplish this object, however.

Mr. Merriam, of Tewksbury, said that some of Mr. Brooks's conclusions were at variance with his experience. He had bred Durham cattle for the last fifteen years, and considered their speed as travellers, remarkable. He considered them good workers, having used them on his farm;

they keep as easy, eat as heartily, and withstand the cold as well as any other kind of cattle.

Mr. **Sheldon**, of Wilmington, strongly urged the superiority of the native cattle over all others. In 1835 he worked 113 cattle in this city, among which was a yoke of good Durhams, but he thought they were not so spry as the others.—Talking with one of his old teamsters last week, he asked him to name the cattle which he could recollect were considered by himself and others to be the best in Mr. Sheldon's possession while he was in his employ. The teamster mentioned some eight or ten yoke, all of which were native stock. If you go to the butchers, nine out of ten of them will tell you that the flesh of native animals suits their customers better than foreign, and at Brighton, handsome native cattle are the most praised by the butchers. As an offset to Mr. Sprague's remark, last Tuesday evening, that the specimens of superior native cattle cited were selected from drovers of a thousand at Brighton, he would remark that the specimens of foreign animals brought to this country are selected from herds of tens of thousands, and at enormous prices.

Mr. **Buckminster**, of Framingham, thought that finer cattle than some of our native stock could not be found, and that we ought to cultivate it. He denied very positively that a yoke of pure blood Durham or Devon oxen had ever been seen in this country. He explained the reason to be that breeders could get more for a single bull than for a pair of oxen, and hence would not raise oxen. The cattle we have are crosses, and he would give ten dollars to the man who would find a yoke of pure blood Durham or Devon oxen in this State. By selecting the best native bulls and cows, he thought a very superior race of cattle could be obtained. In fifty years we might get up as good breeds as any in England. Our fault is that we have not patience enough in this matter, and are not willing to wait for such a result. As to breeding in-and in, he did not see any difficulty in it, if properly understood. The human race sprung from one pair, and wild horses, which are swifter and stronger than those domesticated, breed in this manner. He stated that stock imported into this country forty years ago, had grown better and better under this system. He remarked, in conclusion, that the cows of this Commonwealth did not probably yield, on an average, more than five pounds of butter per week, while, with proper attention to the animals, ten pounds might be obtained from the same amount of food consumed.

Mr. **Frederick Emerson**, of Boston, said it was very uncertain what was meant when "native" stock was spoken of, and described several varieties which would probably be called native by some.

Mr. **Merriam** thought the discussion had shown that all were agreed as to the necessity of *good blood* in order to secure good cattle. Let the farmer ascertain definitely what he wants in an animal—beef, milk, or working qualities—and then select accordingly.

Mr. **Fay**, of Essex, said the quickest way to obtain a good breed of cattle was to select a pure blood bull from a mother possessing in the highest degree the qualities desired, and take a mixed female. The pure blood will finally overpower and eradicate the mixed blood, and the progeny will be of pure blood. A French gentleman had succeeded in doing this with sheep in five crossings. He commenced by uniting a pure merino with a pure Leicester, and the result was a mixture which produced sometimes one thing and sometimes another—a pure merino or a pure Leicester, just as it happened. He found that this would not work. Two pure bloods were brought together, and they only wavered without producing any decisive result. He therefore, after much reflection, procured a sheep whose blood had been mixed five or six times, and placed her with a pure male. The consequence was that he attained the object he sought, a peculiar breed of sheep. The mixed blood becomes purer on every crossing. If it is desired to raise a particular race of cattle, instead of looking for superior animals of both sexes, take a pure blood bull and the most mixed male that can be found, no matter how inferior, even if one horn grows downward.

Mr. **Dodge**, of Sutton, thought it would take at least twenty years to get a race of cattle such as we want, and that there was nothing better to begin with than our native cattle.

After considerable discussion, it was voted that the subject of *Farm Stock* be continued for discussion another evening, and at 9½ o'clock the meeting adjourned.

For the New England Farmer.

CORRECTION.

Mr. Editor:—Sir,—Permit me to correct a few mistakes that occur in a report of my remarks at the *State House*, published in your paper of the 10th ult. In one part I am made to say that in order to mitigate a disease known as *pleuro-pneumonia*, "*the farmer is to innoculate the diseased ones with the breath of the healthy and a cure will be the result.*" I stated that veterinary surgeons in Europe, are now experimenting, by innoculating cattle for *pleuro-pneumonia;* that they obtain *matter* (not "breath") from the diseased animal, and introduce it into the systems of healthy ones in view of palliating that awful disease.

Spasmodic "*cholera*," should read *colic*, is located in the muscular coat of the intestines. It arises from perverted nervous action, and therefore, medicines that act on the nervous system of an anti-spasmodic character, should be used.

Yours, with respect, G. H. **Dadd**, V. S.

For the New England Farmer.

FARMING IN IOWA.

Mr. Editor : — I have been highly entertained by the monthly visits of the *New England Farmer* during the past year, and have made the necessary arrangements for its continuance. Whoever gets your monthly for a dollar, gets his money's worth, and I would here recommend to every farmer to trade a dollar for it.

I don't know as you down-easters have any special interest in us, away out in these prairies, but, perchance, there may be some among you, who may think of coming hither some day, and would be glad of some items. Our winter has been delightful, much like a southern winter, with the exception of their rains. You all know, right at home, something about a drought the past summer and fall; but yours is over, ours continues. Springs and wells are low, and the scarcity of water in many places is great. The winter has been so mild, there will be sufficient food for stock, and as for the swine tribe, I believe they will all be killed to save corn,—not for the price they bring, being only $3,50 per hundred. Short as the crops of corn are, a man can gêt more for a day's labor than he can pack home on his back. I mean at one time.

Cattle and horses are high, and the wherewithall to buy them scarce. The bank panic among our neighboring States injured business a little, as we have a large circulation of their currency. When times are dull in the east, many mechanics are usually seeking the west to better their condition, and perhaps to change their occupation, to enter upon the delights of farming. Well, there is an ocean of land here.

> "Uncle Sam has land enough to give us all a farm,"

but he don't own much in this State adjoining a village, a post-office, school-house, saw and grist mills, and mechanics' shops of various descriptions. His land is generally situate beyond these, but he has situations enough for them, if you can be patient until you build them. Now all ye men and women, who are romantic, able and willing to work without cider and apples, and well fortified with patience and the "material aid," "come along," for Uncle Sam's lands afford great openings for you, and a few years of "patience and well-doing" will secure you a good and beautiful home. Bear in mind, my immigrating friends, we shall all be glad to you—the more money you bring, the greater our joy; and also bear in mind not to expend all your money for land—have a *balance* to buy your team, your farming utensils, your household furniture, your provisions for the first year, &c. &c. We, old citizens, can't borrow money less than two figures in the per centage. New countries are better to loan money in than to borrow. Keep out of debt, if you don't own all the land that adjoins you.

If any live Yankee has the fancied notion, that he can make an honest and genteel living, even on our fertile land, without labor, the trial will take it out of him.

There is an abundance of land in market besides Uncle Sam's, and far better improved, but not at his price. Some have not got far enough west,—neighbors too near,—would sell and go where there is more breathing-room,—some not exactly satisfied, perhaps the lady discontented,—too far from her ma; some would sell, because they can get a few dimes more than they gave; others are obliged to sell, because they have done, as many more will do, bought more land than they can cultivate or pay for. We have specimens of all character from every country.

I am half inclined to be grave, and contrast the Western with New England farming, but I fancy my brevity will entertain more than my gravity could.

Jan. 21. — The greatest snow-storm we have had for many years. Nemo.

Burlington, Iowa, Jan. 21, 1855.

For the New England Faemrr.

MONTHLY FARMER FOR FEBRUARY.

February, though the shortest month of the year, is the grand battle-ground of the belligerent forces of the Seasons. The Sebastopol of Winter is now besieged by the allied armies of Sun, Rain and Wind. The few breaches they effect in her battlements, are, however, speedily repaired by General Frost. But every morning the big gun of Summer is found to be a little nearer its walls than it was the day before, and its fire proves warmer and warmer. And the wind, too, so long doubtful on whose side to battle, begins to show very clearly that the Northern Bear can count on his aid but little longer. February, then, decides the contest,—though there may be skirmishes in March and April,—and our Sebastopol *is* taken! Winter surrenders! But, as with all other tyrants, it is one thing to break his power; quite another to improve his disposition.

Though February is a short month, I do not find the *Farmer* any shorter than usual. With the advertising patch reclaimed, there is now more room than ever, and every corner is filled. Following the editor's *Calendar*, we find the tri-headed article,—

The Potato—Curculio—Shad-bush,—which shows how the writer, who cultivated potatoes in a field with several others, raised the best crop of all; how he saved his plums; and how a pear that he grafted on a shad-bush, grew, bore fruit two or three years, and died—as all such grafting does, so far as I have observed. Years ago I tried the experiment, with no better result.

Grass Crops.—Dissertation on the value and the cultivation of this important crop.

Selection of Apples.—A list of twenty kinds of apples, that an old grafter recommends from actual trial and personal knowledge.

Lime—Salt—Corn.—Inquiries about salt and lime as manure, used as Prof. Mapes directs; with the writer's plan for a corn-crop.

State Board of Agriculture.—Report of operations on the farm of the State Reform School.

Fall Plowing—Plaster.—What "Plaster from Vermont" means I do not know. Mr. Adams, who spent two years on a Geological Survey of that State, gave no encouragement of finding it there, although it is used to some extent by the farmers in the Champlain valley. Was Mr. Woods' Plaster, lime made of the shell marl that is found in the northern part of Vermont? Mr. W., also says fall-plowing destroys worms. Another article objects that fall-plowing exposes the manure to waste.

Official Visits to Farmers.—Recommending the employment of men in each county, under the appointment and pay of the State, to visit farms reported to be good, and to present the facts ascertained through the press. For my own part, I don't like that word "official." Mr. Colman once held an office similar to the one proposed. In his valedictory preface to the Fourth Report, he says:—"By many persons, the Commissioner has been regarded as a kind of tax-gatherer, and his approach has carried their hands, almost involuntarily, to clench their pockets."

Culture of the Pear.—"75 cents a dozen," "$1,50 a dozen," "6 cents each," "12 cents each," and such like, are every fall on the cards in pear dishes, displayed in the fruit stores of Boston. This article comments on and recommends choice varieties, and then promises to give us the writer's views on the proper culture of the Pear, which I am looking for with much interest.

Dairies.—Report of Middlesex County Committee, in which some thrusts are made at certain Book-farming cows.

Poultry cheaper than Pork, if figures don't lie.

Pulverized Peat.—May not this material be used to save a portion of city waste? What has become of *that* committee?

Value of Root Crops.—This article is reviewed by E. C. P. on page 90, in a sensible article headed *Relative Value of Food.*

Wire Fences, made by Machinery.—The pictures of this fence make a pretty appearance on paper, and may work well on the farm, where fencing is expensive. From my observation of the effect of the climate upon iron, I have always feared that rusting would prove a serious objection to wire fencing. But it seems that no trouble is anticipated from this source, as it is "calculated" to last a century or more, by being varnished, painted or tarred once in five or six years.

Basket Willow.—Whether the people of the United States can raise their basket-stuff better than they can their silk dresses, seems about to be tested. We have in this number an account of a successful experiment in raising the Willow in Hingham, Ms., and also of a machine for peeling it, invented in Vermont. The "rod is in a pickle," then; but, gentlemen, don't get up a multicaulis fever with it. Do let us be sober once.

An Agricultural Glimpse of Washington City.—Two very interesting letters by one of the Editors. Pity such pictures of life should be drawn in the capitol of a free people.

Profits of Hens.—Why are hens worth a third more in December than in March?

Turnips for Pigs.—The writer found that Swedish turnips wintered over, and fed raw to his pigs in June, kept them growing finely.

Legislative Agricultural Meetings.—We have the reports of the first two meetings of this association, at which the subjects of last summer's drought, and of the small grains, were discussed.

Serf Labor in Poland.—When any American farmer gets the blues, let him turn to the monthly *Farmer*, and read this extract.

Value of Apples.—An article that embodies the result of much labor to ascertain the value of apples, by scientific processes. The conclusion seems to be that for fattening stock, sweet apples are worth as much as potatoes; and that sour apples are worth twice as much as potatoes for growing stock, compared by weight, not measure.

Machine for Chopping Brush, that does the work of forty men! Many farmers in Massachusetts burn little but brush, themselves, as the merchantable wood is all sent to market, and it is lots of work to chop it up with axe and hatchet. Don't see why a brush cutter might not be of great advantage, where wood is worth six or eight dollars a cord. True, the work by hand may be done evenings and at odd jobs; but I have thought sometimes, this winter, that I had rather be reading the *Farmer*, than cutting brush by lamp-light, to keep one stove warm.

Although I have alluded, directly or indirectly, to only about one-half of the articles that make up this number, I will stop here, and claim for once the merit of brevity—a higher mark than I often deserve. A READER.

Winchester, Feb., 1854.

ENCLOSURES.

There is, perhaps, no department of agriculture which can properly be considered of more immediate importance to the farmer than that of FENCING. Yet, singular as it may seem, there is none which, by the generality of husbandmen, is so much neglected, or more badly managed. The habit, already become inveterate, in many sections, of compelling the animals of the farm to carry the fences on their horns and necks, in the shape of "blind-boards," "stoops," "hampers," "jewsharps" and "pokers," is one that calls loudly for reform. Good and substantial fences are by no means so expensive as they are supposed to be; and if, to adopt the language of an able writer in a late New York paper, "the proportion of crops that are annually lost in the country from the use of such apologies for fences as are frequently seen, could be correctly ascertained and added to the sum which must be deducted from the value of the horses and cattle thus taught vicious and unruly habits, and the whole presented at once to the eye of the farmer, or land-holder, it can scarcely be doubted he would be surprised at the result, or that he would at once awaken to the importance of having good fences." As to the cost of fences, the following remarks, published some years since by Mr. SHURTLEFF, in the *Farmer*, afford valuable data.

A fence of white cedar—posts and rails, five rails in height, and three lengths to two rods; cost *nearly* ninety-one cents per rod.

A fence of white pine and chestnut—rails white pine, sawed two inches by eight, chestnut posts, four rails high, three lengths to two rods; cost sixty-four cents per rod. In both these cases the cost was exclusive of the setting.

Stone wall—four and a half feet high, varied from one dollar to two dollars fifty cents per rod, according to the amount of labor required in transporting the materials, and the manner in which the wall was laid, whether by trenching or otherwise.

Hedge fence, made of Virginia thorn plants—(*cratægus cordata*) set twenty-one to a rod; cost, at the end of the fourth year, including planting, trimming, etc., *fifty cents* a rod! This statement with respect to the cost of hedges of Virginia thorn, accords well with the experience of others who have introduced this species of enclosure on their lands, and especially with those of Mr. Kirk, of Pennsylvania, whose experience in this particular department of farming, probably exceeds that of any person in the United States. The cost of stone wall, we think, will generally be not far from $1 per rod, and if from this we deduct the increased value of the soil, permanently improved by the removal of the stones, and the very important advantage resulting from having them placed forever out of the way, the expense of this highly valuable and desirable species of enclosure will probably be less than that of hedge. But hedges, when properly managed, are very desirable. They are not only permanent, but very efficient as a protection against the depredations of every description of animal ordinarily found upon our farms. They are also very ornamental, and communicate a rural aspect to the country which other species of enclosure cannot equally confer.

The editor of one of our agricultural publications, in some observations pertinent to this subject, says:—

"We have found by experience that in making fence of posts and rails, or posts for bars or gates, there is nothing gained by making the posts too small. Perhaps there is no timber in which the difference of durability between large and small posts is more striking than in that of the common white cedar or cypress of our swamps. Mr. Shurtleff found his cedar fence to last about fifteen years, the posts rotting off in that time, and perhaps fifteen years may be set down as about the ordinary duration of a wood fence, let the method of construction be what it may. This single fact should cause farmers and land-owners to pause, and ask, where their fences are to come from, when their present, and perhaps already half-decayed, wood fences are rotten and gone? We are convinced that, ere many years, want of fence will be one of the most serious evils the farmer will be called to encounter."

Wheat.—According to the most correct analysis, wheat contains, in one hundred parts, 3.3 per cent. of ashes, and these ashes consist of 12 per cent. lime salts, and 51 of silica, or sand. Hence, wheat will sometimes succeed after buck-wheat, as they are composed of different elements, both of which may co-exist in the soil.

For the New England Farmer.

A WORD IN SEASON ABOUT GUANO

BY DR. JOSEPH REYNOLDS.

The failure of guano to produce the beneficial effects expected from it, the past season, seems to have destroyed the faith of many farmers, in its value as a fertilizer. For my part, I have not lost my faith in it at all, but I think I have learned something from observation, with respect to the proper mode of applying it. Indeed, the experience of the past year has only confirmed an opinion which I have long had, that the efficacy of guano depends essentially upon the mode of its application. Last spring an idea got into extensive circulation, that the mixing of guano with other substances was but little better than labor lost. Hence, many farmers put it into the hill, and planted their corn, or other seeds, in direct contact with it, or with only a little earth thrown over it perhaps with the foot, in dropping the seed. In this state, when the tender radicles of the corn shot downward, and came in contact with the guano, which had now become softened into a caustic paste, they were at once burned and destroyed, as they would have been in a paste of lime or ashes. After the corn was planted, but little rain fell for some weeks. Probably in many instances no rain reached the guano to dissolve it, and diffuse it through the soil, but it all remained, confined to a small space, except what was given off in the form of vapor, and acted, when it acted at all, in a concentrated form.—This may be illustrated by the action of certain caustic substances—ammonia, for example—when applied to the surface of the human body. When this is applied in a diluted form, over a considerable surface, it stimulates the vessels of the skin to a more vigorous performance of their natural functions; but when applied in a concentrated form, it destroys the entire tissue to which it is applied, and leaves an unsightly and painful ulcer. One of the best fields of corn which I saw in this town, the past season, was raised with guano in the following manner: After the ground had been properly prepared, a furrow was made for the row, of the common depth. The guano was sprinkled into this furrow, through its entire length. It was then covered with the hoe to the depth of two or three inches, and the corn dropped upon this covering, the kernels being placed eight or ten inches apart. The yield was estimated, notwithstanding the drought, at a hundred bushels per acre. Where it is preferred to plant in hills, rather in drills, the guano should, if used unmixed, be sprinkled over at least a square foot of surface, at the bottom of the furrow, and be covered with about two inches of soil, and the corn dropped upon this.

But my object in writing at this time is to say a few words about the use of guano as a top dressing. Those farmers who intend to use it for this purpose, should improve the present time to obtain it, and prepare it for use. During the stormy days of this month, or the early part of March, when they cannot work out of doors, they can pulverize it upon the barn floor, and stow it away in barrels for use. During the cold weather it gives off but little of its ammonia by exposure to the air. But during the warm days of spring, when exposed, it parts with a great amount of it. My own belief is, that it is best, for whatever use it is intended, to mix it with plaster, pulverized peat, fine dry compost, or in the absence of anything better, with fine rich soil from the garden. These should be mixed with it in the proportion of at least five bushels to one. If this mixture is now made in the barn floor, or in a dry cellar, whatever ammonia is given off by the guano will be absorbed and retained by the diluting substance. If before you have occasion to use the mixture, you should find it smelling of ammonia, dissolve five or six pounds of copperas in a barrel of water, and occasionally sprinkle the surface, or throw over it an additional quantity of pulverized peat, or a little charcoal. In this way, you will have your guano ready to apply as a top-dressing, at the time when it should be applied, which is as soon as the frost is out of the ground, and the grass begins to start. If you can avail yourself of a new-fallen snow, about the first week in April, as is often the case, you will be able to sow it more evenly. If not, sow it during or just before a rain. If sowed upon dry land, and the sowing should be followed by several days of bright sunshine, a great part of its value will be lost.

When used as a top-dressing, it is worth much more upon moist than upon dry land. Two years ago, Friend Dyer, of the Shaker establishment at Lebanon, sowed guano upon four acres of grass, in the middle of a large field, upon a side-hill, where the land was moist and springy, and he judged that it doubled his crop, although the crop was good before. The expenditure of five dollars to the acre gave at least an additional ton of hay. A gentleman who lived a mile off, told me he could mark the limits of the said four acres through the whole season, from its superior greenness. A gentleman in the neighborhood sowed his guano the latter part of May, after the land had become dry, and it did little or no good.—Here then is a practical lesson which should not be forgotten.

I am acquainted with many instances where the crop of grass has been doubled by the application of 250 or 300 lbs. to the acre; but in every instance the land was moist, and the guano was applied early. When the land is dry, provided it is level, so that the rain and snow that fall upon it will not run off, it will probably be best to apply it later in the fall. Then the rains and melting snows will carry it into the ground. When the land is uneven, or the surface is inclined, as on a side-hill, so that the surface water will run off before the ground is thawed in the spring, the dissolved guano will be carried off by the water, and nearly the whole value will be lost, if it is applied in the fall. As a top-dressing to winter wheat and rye, I think it will be found no less efficacious, than when applied to grass, provided the above conditions are observed in the application. When rye is grown upon very dry land, as is usually the case with us, I think it will be better to plow and harrow it into the soil, when the rye is sown. Again I say, that no time is to be lost in purchasing and preparing the guano which you intend to use as a top-dressing. J. R.

Concord, Feb. 15.

PEAS.—The soil for peas should not be too liberally enriched. A great degree of fertility appears not to be requisite to develope the excellencies of this crop, which is indebted less to the soil than many other vegetables, and more to the air, for the food which perfects its growth.

TO YOUNG MEN AT SCHOOL.

AN APPEAL TO THOSE THAT MOST FREQUENTLY MAKE TROUBLE.

Those to whom we refer is a class of young men, who attend the winter schools, and are so disorderly, and in some cases determined not to obey the teacher, that things are rendered trying and disagreeable; and the usefulness of the school is much prevented. They are from 12 or 14 years of age, up to 20. It is not common to find female pupils of these ages that make trouble.—There is generally too much pliancy, delicacy and refinement in them for this. Man has more roughness in his nature, and unless he exercises self-control, he will go far astray.

In a few observations for the benefit of this class, let it be said that your teacher may not be right in every course he takes, nor in everything he does; but then it is not for you to correct him or to be revenged on him for any acts that are not just what they should be, by disorder at school. He is to be approached and advised by the committee, or by your parents, or it may be by yourselves in a private manner if he judges you wrongfully, or does not help you in your studies as you have need. But it is often the case that it is the determination on the part of a few on the first day or week of the school, and sometimes even before it commences, not to like, and to be disorderly. This is unfair and unjust.

Now what can be gained by disrepect to the teacher, and by ungoverned conduct at school? Is it of any value to you to prevent the peace and quietness of the school, and thereby have many that attend it, hindered in their studies, and time and money lost? Do you wish to lose the precious opportunities afforded you of getting that knowledge that will be more valuable than gold? Have you not self-respect enough to conduct with propriety and decorum? Do you not wish to act the part of gentlemen? We appeal to all that is honorable in you not to let yourselves down by opposition to the teacher, and to the disgrace that attends the trouble you may make in the school. Be kind and respectful towards the one that has charge. Be orderly and polite, instead of being wayward, coarse and vulgar. It is the direct way to rise to places of usefulness, fame and peace.—*Exeter News-Letter*.

For the New England Farmer.

MR. CLARK'S COW.

In the *Boston Journal* of Jan. 23, it is stated, by Mr. Clark, of Sunderland, that *one pound one ounce* of butter was made from *three quarts* of the milk of his cow—her feed *corn fodder only*. I think it must have been, like the Dutchman's *wheat-straw*, on which he kept his fat horse, *very poorly threshed*. This goes ahead of Mr. B.'s Devons or M.'s Jerseys. I should like to know, whether this milk was a fair average of the product of the cow, or whether it was *the strippings*. One story may be good until another is told. It will not do to *deny anything*. X.

Jan. 29, 1855.

HORTICULTURE.

PRUNING THE GRAPE.

Our people are beginning to appreciate the value of the grape, both as an article of food, and as affording a pure and wholesome tonic for the sick and infirm. As an ornament, also, in the grounds about the house, it is scarcely excelled by any of the plants which are sufficiently hardy for our climate. There is great uncertainty in the mind of many persons as to how and when the grape vine should be pruned, and finding an excellent article in the *Country Gentleman* on the subject, we have incurred the expense of engraving the cuts annexed, in order to give practical illustrations of the mode of pruning and training. These, with the explanations, will make the whole so plain, that all may cultivate the grape with a certainty of success.

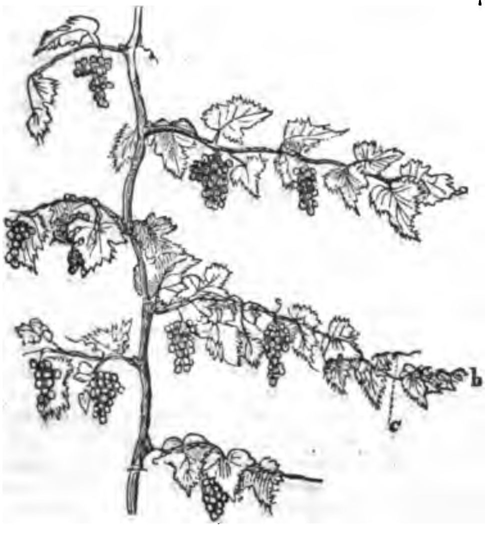

Fig. 1.—Portion of a grape vine in bearing, representing the bearing branches, from the sides of a last year's vine.

A correspondent at Southeast, N. Y., requests a chapter on the pruning of the grape. He adds, "I do not trim on the renewal system, and I find that this year's shoots that are to be next year's bearers, if kept without any trimming, fling out such a profusion of side-shoots that they become altogether too thick; and by trimming them off, the bud which should be left to grow next spring, will grow this summer and produce a crop of grapes. I had grapes on such vines this year that were about full grown when frost came. I cannot keep the vines thin enough without taking off the side-shoots. I also wish to ask whether, in grafting the vine, if we have little vines up, shall we graft them, and then set them out as we do root-grafted apple trees, or must they be cut off below the surface and be grafted when they are growing?"

[Our experience suggests that, if *taken up* and whip grafted, and then planted out, they are sure to succeed; cover the scion with earth up to the topmost bud.—Ed. Farmer.]

In compliance with the request of our correspondent, and in reply to frequent inquiries, we furnish a few hints on pruning the grape, which we shall endeavor to make sufficiently plain by reference to figures, that inexperienced cultivators may easily understand them. A well-pruned vine will not only produce *earlier* fruit, but it will be larger, and incomparably superior than on one left to straggle without care.

There are two leading principles that should be always observed in pruning the grape, whatever may be the particular mode adopted. The first is, that the vine *always bears the fruit on the present year's shoots*, which have sprung from buds on the previous year's growth, (Fig. 1.)—Secondly, that the full growth and perfect ripening of the *fruit* depends wholly on the healthy, well developed *leaves*, which supply food to the forming berries, and hence the growth must not be allowed to become so thick that the leaves cannot properly develop themselves, nor should the vines be trimmed so closely that there shall not be leaves enough for the perfection of the fruit. These two facts must be always borne in mind by those who would raise the best grapes. These being understood, we now proceed to the details of pruning.

First Year.—When a vine is first procured from the nursery in spring, it is usually furnished with several irregular shoots of the previous summer's growth, resembling Fig. 2. These should be all closely pruned to the older wood, leaving only the strongest, and this should be cut back so as to leave but two or three buds, (Fig. 3.) These buds will grow, and when only a few inches in length, the strongest shoot must be selected, and the others rubbed off. This single shoot is allowed to grow till about the first of autumn. After this period, the new leaves and wood that are formed, cannot mature perfectly, and their growth will be in some degree at the expense of the matter forming in the previous portion of the shoot. Its growth should be therefore stopped by pinching off the end. This will assist in maturing and strengthening the vine. Any *side-shoots* that appear during the summer, or any smaller shoots that happen to spring up from the stump, should be kept rubbed off as fast as they appear, as they withdraw and divide the nourishment received from the roots.

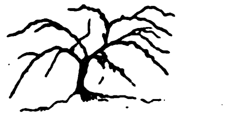

Fig. 2.—Vine as obtained from nursery, with straggling shoots.

Fig. 3.—The same, pruned when set out.

Second Year.—The single strong shoot made the first year, (Fig. 4,) should be cut down to three or four buds, only *two* shoots from which should be allowed to grow, the others being rubbed off, and the lateral shoots, should any appear, being removed as already described. The autumnal shortening of the two shoots as above stated is also necessary. The judgment of the cultivator

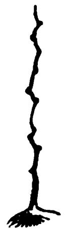

Fig. 4.—Growth at end of first summer from setting out.

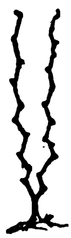

Fig. 5.—Growth at end of second summer from setting out.

will teach him, that if the transplanted vine is small or weak the first year, and makes but a few feet growth, the same first year's process must be gone over again the second year, until the vine becomes strong enough to send up a shoot at least some nine or ten feet in length, when the "second year's" operation may be commenced upon it.—Any fruit which sets should be removed, as the vine is not yet strong enough to bear and support a vigorous growth at the same time.

Third Year.—The two shoots made during the second year, (Fig. 5,) are now extended each way horizontally, and fastened to the newly erected trellis. This may be done at the end of the second year, or early in the spring of the third.—These horizontal branches, termed *arms*, are to be cut back at the same time, so as to leave two good buds on each, so that four shoots, two on each side, may spring up from them; the same care as formerly being observed to remove suckers or supernumerary shoots and side branches, and to give the autumn shortening. None of the fruit bunches should be allowed to remain. The four shoots, as they advance in growth, should be tied to the trellis, in the position that the figure represents.

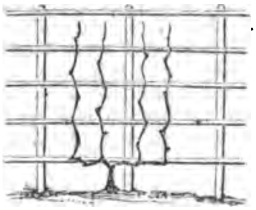

Fig. 6.—Growth at end of third summer from setting out.

Fourth Year.—Two shoots or canes are suffered to remain in their position upon the trellis, merely cutting them down to three or four feet. They will throw out from each bud side-shoots, which are the fruit-bearers, and on each of these spurs one or two bunches of grapes may be allowed to remain and ripen; the ends of these spurs or side-shoots being pinched off, as shown at *c*, Fig. 1. All other bunches should be rubbed off as soon as they form. The other two or outer shoots should, early in the same spring, (or late the previous autumn,) be laid down horizontally so as to form an extension or continuation of the *arms*, and at the same time be shortened to within about two feet of the ends of the previous arms. Two buds should be allowed to grow on each of these horizontal portions, one of which is to be trained upon the trellis for another bearing branch, and the other to serve for a continuation of the arms, as before, no bunches being allowed to grow on them. In this way, two new bearing shoots are added yearly, until the entire space intended for the vine on the trellis is filled.

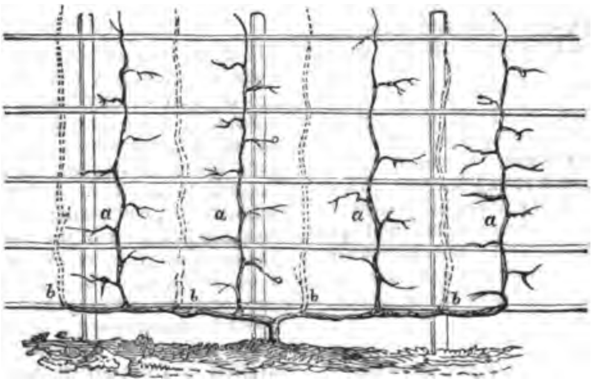

Fig. 7.—A full grown grape vine, trained on the alternate or renewal system—the dark vines, the present year's bearers—the dotted ones, growing this year, for bearing next.

We have already remarked, at the beginning of the previous paragraph, that the two upright shoots are cut down to three or four feet. A bud should be allowed to grow at their upper ends, from which all bunches are to be removed, so that they may serve to extend their length upwards, till the full height of the trellis is attained.

There are two modes of treating vines trained in this way. One is what is termed *spur-pruning*, and the other the *long-cane* or *renewal* system. Theoretically speaking, there is but little difference between them, but they are quite different in practice. We have already remarked that the bunches are borne on the present season's shoots. In *spur-pruning*, these shoots are thrown out yearly from the sides of a *permanent* upright shoot, and are cut back yearly, for new ones to spring out from the buds left at their base in pruning.

In the *long-cane* or *renewal* system, every alternate stem is cut wholly down to the horizontal arm; so that, while last year's upright shootis furnishing a crop of grapes this year,—this year's shoot is growing (free from all bunches,) for a similar crop for next year. No shoot, therefore, remains above the arms longer than two years.

Spur-pruning is best adapted to slowly growing sorts, (chiefly exotics) which cannot produce a full-length branch in one year. The renewal system is best for the most vigorous American varieties, which will grow fifteen or twenty feet in a year. Fig. 7 exhibits distinctly a vine trained to a trellis, and treated on the renewal system, the dark shoots being the present season's bearers, and the dotted lines showing the growth of the canes for bearers next year, while new ones are growing in the places of this year's bearers.

Summer pruning, which consists in the removal of all supernumerary shoots and bunches as fast as they appear, and in pinching off the ends of bearing shoots, after enough leaves have formed, is of great consequence. Vines left to themselves, even after a thorough spring pruning, soon have such a profusion of leaves and branches, that none can perfectly develop themselves, and the fruit is consequently small, the bunches meagre, and the ripening late. The summer pinching of the ends of the bearing shoots should be cautiously done, and not before the grapes are about half grown; four or five leaves, at least, should be left on every one, above the last bunch, and never more than two bunches be allowed on each bearing fruit.

The old vine should never be allowed to rise a foot from the ground—the lower it is kept, the easier the vine will be managed, and the freer it may be kept from suckers. Some of the best cultivators bury the old stump beneath the soil.

The preceding will, we hope, fully answer all the inquiries of our correspondent, and prove useful to beginners generally. We are not aware of any experiments in root-grafting the grape out of ground—its success can only be proved by actual trial.

GROUNDS ABOUT THE HOUSE.

There is probably no other way in which the homestead may be beautified, and even made profitable, than by expending every year a little money and labor in laying out and planting with fruit trees, shrubbery and shade trees, a space proportioned to the size and style of the buildings, and immediately about them. Shade in summer, protection from storms and winds in the winter, and wholesome fruits, may be obtained, together with that constant idea of the beautiful which such such an arrangement would present. Below are some remarks to the point, which we copy from the *Country Gentleman*:

"There is nothing in practical life, in a knowledge of which our countrymen are more deficient, than in laying out and properly planting and cultivating the grounds around their dwellings. Very often they are not laid out nor planted at all, but are left in a state of primitive bleakness, or only ornamented by objects of confusion and disorder. Where improvement is actually attempted, the result is not unfrequently a combination of inconvenience and stiffness; and very few neatly, economically and tastefully laid-out grounds are to be met with. Why should not this art, which every living man in the country ought to practice, be taught in our higher schools? Latin and Greek are excellent studies for those who have plenty of time and means for these as well as other departments of knowledge; but for such as cannot master all, would not the months consumed on Tacitus and Thucyides, be more profitably spent on those fascinating and eminently useful studies, drawing and architecture, in connexion with landscape gardening? When will the time come that the latter will have only an equal chance with the former? Time once lost never returns; and it is of the highest consequence that those who direct the mode that young people shall spend it at the most critical of all periods in their lives, should study carefully the best modes for accomplishing so all-important an object."

☞ We have heretofore given a portion of the remarks of the President at the last session of the Pomological Society, and now proceed to give some of the reports from the States represented in the convention.

REPORT FROM NEW HAMPSHIRE.

B. F. CUTTER said, New Hampshire, as a State, in former years, has not been celebrated for culture of fruit of any kind; but since our State and county Fairs have been in operation, a new era has commenced in the business, and an impetus given to it that, in some places, almost amounts to a mania. Information is sought for, and orchards, containing the most choice collections, are being set in the most approved manner, that in a few years will work an entire revolution in the business. The nursery business remains good, and the nursery-men are becoming more experienced, and paying more attention to making choice collections of fruit; yet we have many varieties of fruit cultivated of a local character, and many of them entirely worthless, which makes one of the most serious drawbacks in fruit culture.

REPORT FROM VERMONT.

C. GOODRICH said, the Northern Spy has not yet answered our expectations. It is a hardy and good grower, but a very shy bearer. Old bearing trees, grafted in 1846, have yet produced little fruit; while in the same orchard, and like trees as those grafted at the same time with the Baldwin, cut from bearing trees in Cambridge, Mass., produced full crops the fourth season, and have continued to do so in alternate years, at the same time making a large growth. The Gravenstein sustains its high character; fair, very hardy, good grower and bearer, and in every respect I must mark it *best*.

REPORT FROM CONNECTICUT.

The committee reported that the early part of the season of 1853 was made remarkable by the appearance of the Palmer worm, so called, in great numbers, which destroyed the foliage of apple trees, as well as that of some others, and, of course, injured the fruit more or less. This insect eats the leaves as voraciously as the canker-worm, and at about the same season, viz., June. They did not appear again this year.

Very much fruit, it is believed, was destroyed this year by a severe frost that occurred on the first Sunday night in May, the effects of which were more noticed than the cause; which fact can only be accounted for by the habit people have, in these parts, of lying late Sunday mornings. The morning was bright and clear, and the ground where it had been broken up, frozen hard enough to bear up a man of common size. Plum trees, cherry, and perhaps some others, were in profuse bloom at the time, but failed almost entirely of producing fruit. Apple and pear buds generally were also much injured. One fact, in this connection, is worthy of notice: many pear trees, on quince roots, were at this time entirely killed, as appeared afterwards, while those on their own roots were not injured beyond the destruction of fruit. About one dozen vigorous looking trees were killed in my own garden, many of them having borne fruit several seasons; showing very conclusively that pear trees, on quince roots, are liable to a calamity which those, on their own roots, are not. The trees, in this instance, were forward, the buds nearly ready to open, and the sap, of course, in free circulation, making it most probable that the sap vessels were destroyed by freezing of the sap. If this be true, there is one objection to trees thus worked, which we have not seen noticed.

REPORT FROM NEW YORK.

Mr. John B. Eaton said—Fruit culture in the vicinity has rapidly advanced within the past ten years. Up to that period it had attracted comparatively little attention, and (except in the nurseries) the varieties cultivated were few, and many of them such as would now be considered worthless. The apple was almost the only fruit I cultivated for market, except a few of the most common pears and cherries. There were several pretty large apple orchards, composed chiefly of Rhode Island Greenings, Spitzenburg, the various Russets, and a few others, which, at that time, comprised the bulk of the varieties under cultivation.

Many thousands of trees have since been planted, and nearly all the finest apples, pears, cherries, plums, etc., have fruited. The smaller fruits have also largely increased, both in number of varieties and quantity. The strawberry, in particular, has of late received much attention, and a considerable extent of land is devoted to its cultivation.

TO CORRESPONDENTS.

Communications have recently been received upon the following subjects, which we shall insert as we can make room for them, viz.:—Plows and Stones; Articles in Season; Springs—Live and Dead Weight of Beef Cattle; Stone for Building; Shaping Cattle Horns; A New Building Material; Plows and Plowing; Gas Lime; Profit of Hens; Propagating Apple Trees; Quinces, China Peach, Pear Trees, Strawberries; Mixing Varieties of Corn; Lunar Influence, No. 2; Raising Apple Trees; Waste of Manures, Muck, Hops; Worms in Cornstalks; Draining, two articles; Hard Times, and price of Labor; Turnips for Pigs; Profits of Farming; Bethel (Me.) Farmers' Club; Short Horn Cattle; Inquiries about Hops, and several articles in relation to the Basket Willow. In regard to the latter articles, if we find anything in them that we have not already given, we shall be glad to publish it.

Now is the time to write. Soon the fields will invite the farmer to their care, when the pen will be resigned for the plow. If your communications are sent us, we will see that they are presented to the world in good season and in good form.

For the New England Farmer.

THINNING FORESTS.

Mr. Editor:—In your January number of the monthly you have an article on "Thinning Forest Trees." The subject is one of vast importance to the future interests of New England. The writer of that article says, "The question is often asked whether woodlots should be thinned? He is convinced, after no limited reflection and observation, that they should not." Perhaps I do not fully understand what he means by woodlots. A woodlot of large trees is one thing, and a thick young growth of trees, intended for a wood and timber lot, is another. That the last-named may be advantageously thinned out, I am now convinced, after no limited reflection and observation, tested by more than twenty years' experience.

I am aware that many farmers object to thinning out a young growth, if it be ever so thickly set with trees. Their doctrine is—nature will perform this operation better than man can. But says the author of an able work on forest trees, (Richard S. Fay, Esq., Essex County Transactions, 1848,) "To cultivate a wood plantation successfully, requires the same degree of care and attention in thinning out, as an onion, carrot or beet bed. If the trees are left to struggle with each other for the mastery, the vanquished will die, while the victors will suffer severely from the effects of the struggle." "The object to be attained by thinning, is so to regulate the distance of the plants, that they will not interfere with each other's growth; and for this purpose it is necessary that each plant has sufficient space of ground and air, for the spread of its roots and branches, proportionate to its size at any stage of its growth. To accomplish this properly, requires constant attention. It is highly injurious to thin so much at one time as to have the trees remaining exposed to a greatly increased degree of heat and cold; it is like suddenly removing the plantation a few degrees farther north or south. So it is equally injudicious to allow the plants to become crowded and interlaced, as thereby they exclude too much the light and air, and serve to weaken each other. In rearing a plantation for timber, the approved rule for hard wood trees is, to have a space between each tree equal to one-half its height; and for resinous trees, a space equal to one-third the height; this should be kept in view from the moment the thinnings commence. The period when these thinnings should begin, must depend on the forwardness of the trees."

In Germany, the management of wood and timber trees is under the direction of educated and competent government agents. In making new plantations there from seeds, broadcast sowing is found the better method; the plants being allowed to grow, all together, a dozen or twenty years; when the weaker and poorer ones are removed; leaving the best and straightest to grow; always careful, however, to leave enough to keep the ground thoroughly shaded. The thinning and trimming employ hundreds of the peasantry when other labor is in less demand. The limbs and twigs are made into faggots, and chiefly used by bakers; the trunks and larger branches are saved for fuel and other purposes.

About twenty-five years ago I came into possession of several acres of "pine plain land," covered with a thick growth of white-yellow and Norway pines; the trees were then about twenty-five years from the seed. (The land was burned over in a very dry time about the year 1800.) Immediately after I came into possession I thinned out the growth on about two acres, removing more than half the number of trees, they being the smaller portion. The wood thinned out much more than paying the expense of thinning and drawing. Soon after, I sold the land, since which nothing has been done to it. I have, with the present owner, recently examined the lot; we were of the opinion that the portion thinned some twenty-five years ago, is now, from the superior size of the trees worth 33 per cent. more per acre, than that portion left to itself. Can any one doubt, that the limbs and tops of the removed trees, and the decaying stumps and roots of those cut out, with a free access of sunlight and air, has not very much increased the growth where thinned out, over those "left to struggle, from the excess of numbers, for the mastery, many of the vanquished have died, while the victors have suffered severely from the effects of the struggle." I sold the land for ten dollars per acre, the present owner has recently refused one hundred dollars per acre for it. Had he judiciously thinned out the trees from the time he purchased it, till now, he might have (without injury to its present worth,) taken from it enough to have paid the interest on his purchase and taxes. I have thinned out the growth of hard wood trees with results similar to the above described. Levi Bartlett.

Warner, N. H., Feb. 6, 1865.

Remarks.—It is pleasant to observe how old notions are gradually yielding to a better knowledge of the modes of rearing many crops. From boyhood, the cry has been familiar to our ears—"forests must not be thinned, nature will take care of them"—"evergreens will be ruined by thinning." Twelve years ago we saw a forest of white pines thoroughly thinned and *pruned*, and we have seldom seen a finer growth on any forest than on that. Mr. Bartlett will please accept our thanks for his valuable article.

EXTRACTS AND REPLIES.

WESTERN FARMERS.

Dear Sir:—Will you be so kind as to inform me from what paper a young man, intending to go West, can obtain the best information relative to *farming* in the Northern, Western States, or Minnesota Territory. By so doing, you will much oblige a constant reader of the *New England Farmer*. c.

Salem, Feb., 1855.

Remarks.—We have directed two or three Western agricultural papers to "C., Salem, Ms." Why do so many people withhold their names when they write us?

THE NEW ROCHELLE BLACKBERRY.

Editor N. E. Farmer:—I notice some remarks in the January number of the *N. E. Farmer*, in regard to the price of the *New Rochelle Blackberry*. The price at which they are sold is by no means extravagant, as they are only propagated by shoots from the roots, which, all must be aware, is a slow process. The only two persons who raise them for sale,—Mr. Lawton, of New Rochelle, and Geo. Seymour & Co., of Norwalk, Ct.—are trying to raise for their own transplanting; for, after the first or second years' transplanting, they will raise more than a dollars' worth of fruit, and the demand for the fruit is greater than the supply, and will be for years to come.

I exhibited last season, in New Haven, from Messrs. Geo. Seymour & Co., at our Horticultural Exhibition, very fine specimens. One of the berries measured four by three and a half inches in circumference, the size of a pullet's egg. Some of the specimens were taken from a plant in a Mr. Smith's private garden in Norwalk. I think it had been planted out three or four years, and should judge it had on it nearer one-half a bushel than a peck of berries; so that a dollar a plant cannot be a very great price under these circumstances. F. Trowbridge.

New Haven, Ct.

MILLET.

Will you give us, in the columns of your best of all papers for the farmer, a chapter on millet? Will it do well on cold, clayey land? (*a*.) Can it be sown like oats, in laying down ground to grass? (*b*.) If not, what is the proper course, and what is considered a fair yield? Any other information on the subject would be thankfully received.

Raynham, Feb., 1855. Subscriber.

Remarks.—(*a*.) Millet will grow well on such land as you describe, if it is well-drained and manured.

(*b*.) It is too rank and heavy a crop to set grass with.

See Vol. V., *New England Farmer*, p. 157, 203.

VETCHES.

Mr. Editor:—I wish to inquire, through your columns, if you, or any of your subscribers, have had any experience in cultivating the above named grain? If so, whether the seed or root will remain in the ground and germinate in after years? L. W. S.

New Haven, Vt., Jan. 30, 1855.

MANURE FOR THE GARDEN.

Sir :—I am the owner of a house and a half acre of land, and keep one horse, and wish to know of the best way to prepare the manure for the land. Shall I mix the two together, adding ashes, or lime, or salt? I keep no pig, but throw the manure into the poultry yard. Ought the vines or trash from the garden to be thrown on to the manure? How long before the compost would be fit to use.

I had a good garden last year—nothing suffered from the drought, although my land is elevated. I want a better garden next year, if possible—therefore, the reason of asking the above questions, and by answering them you will oblige a

Constant Reader.

Medford, Jan. 19, 1855.

Remarks.—In the autumn, gather all the vines, leaves, and every kind of vegetable matter that will ferment and decompose readily, and place it where the horse manure may be conveniently thrown over it. If this, with the daily additions from the stable, can be kept from freezing, it will be better. In the course of the winter throw it over and mingle the whole intimately. If, in the spring, the mass is too crude and coarse for use, throw it up lightly, wet it, and when the process of fermentation has gone so far as to cause the whole to fall to pieces on overhauling it, you will find it in a convenient and profitable state for the garden.

Another source of collecting and preserving rich and valuable materials, may be this :—In the garden, and near the back door of the house, make a bed of the loam you speak of. Let it be of any size or shape you please, and six to twelve inches deep; then raise the edges eight or ten inches, and upon this throw the waste water of the house through the winter; then, as soon as the muck is thawed in the spring, add the collections of any of the back buildings, and mingle the whole thoroughly once or twice before it is time to apply it to the garden. In this you will find your garden answering your most sanguine expectations.

Ashes, lime and salt, may be sown broadcast upon the garden with as favorable results as applied in any other way. If sorrel abounds in the garden, be liberal with the lime—note the effect and tell us what it is.

POTATOES—AN EXPERIMENT.

Mr. Editor :—Last spring, coming accidentally into possession of two barrels of potatoes, of a variety unknown to me, I cut them into 75 pieces, 11 eyes to a piece, and planted one piece to a hill, putting a shovel full of raw muck, dug the August previous, to a hill, into 60 hills, and into the other 15 I put hen manure and muck, mixed equally one quart to a hill. They were well watered with the drainage of the sink, caught in a tub and applied at night. The whole produced 60 barrels of fair, good-sized potatoes. Those planted on the hen-manure and muck, did not produce quite one-half as much as the same number of hills on muck alone.

West Poland, Me., 1855. T. Tenney.

TURNIPS FOR PIGS.

Mr. Editor : — Having heard that pigs would thrive well on turnips, I thought I would try my skill in the use of them, especially as oats and other grains were high. I fed several, last fall, entirely on turnips, for two weeks, together with the slops from the house, and then as long on oats. With oats at 50 cts., and turnips at 12 or 15 cts. per bushel, I became satisfied that the turnips would produce a larger growth than an equal cost for oats. * * *

Canaan, Vt., 1855.

A BIG TURKEY.

I have a turkey seventeen months old, that weighs *thirty-one pounds*. If you think he is worth a notice, please give him some spare corner. A Subscriber.

January 23, 1855.

Remarks. — A turkey of that size deserves a more conspicuous place than a *corner;* we should be happy to place him on the *centre* of our dinner-table, and pay him most respectful attention, for at least the space of thirty minutes.

FOUR-ROWED BARLEY—GUANO PER ACRE—OSIER WILLOW.

Mr. Editor :—I would like to inquire where I can procure some four-rowed barley, and the price per bushel? (*a.*) What is the proper quantity of guano per acre to put in a hill for corn? (*b.*) Is there as much difference in value between the Peruvian and Mexican, as there is in the price? (*c.*) Will the osier willows be large enough to cut every year, after they once get rooted? (*d.*) A Young Farmer.

Kensington, N. H.

Remarks.—(*a.*) The barley may be obtained at the seed stores, price $1.50 per bushel.

(*b.*) Three hundred pounds is the usual quantity.

(*c.*) We do not know—you must satisfy yourself by experiments.

(*d.*) We have never raised the osier, but understand that it grows sufficiently to be cut annually.

DIVINING RODS.

We cannot see that we should benefit any one by publishing the communication of "E. F. R." on this subject. We cannot oblige our neighbors to fulfil their promises to others.

TREATMENT OF PEAR TREES.

Having much confidence in your opinions, I wish to inquire what particular treatment pear trees require? C. J.

Franklin, N. H., 1855.

Remarks.—Pear trees require a rich soil, kept cultivated, so that it will be light and friable.

For the New England Farmer.

THE CONCORD GRAPE.

This new seedling grape has been much extolled in the agricultural and horticultural journals of the country. How justly it merits what has been said in its praise, there are, of course, various opinions. This is to be expected of every new thing that comes up. Too many people are habitually prone, by nature, or otherwise, to use other people's judgment and reason, instead of their own. Such seldom know what to love or prize till some friend or neighbor tells them. So, oftentimes, new, useful and valuable improvements pass unheeded by them. So it is, and so we may expect it to be. Well, be it so. It is well enough to be duly conservative; but one should be sufficiently careful not to lose *too* much by the means, as I fear very many will in the matter of the Concord Grape.

One of your correspondents, I see, thinks it will take ten or fifteen years to establish the reputation or value of this grape. Well, let him wait that time, with his "place prepared," before he procures one, and see how much he will gain by it. I do not believe any such length of time is required to test its value. I believe it has already been sufficiently tested. As good judges as are to be found in such matters—who have watched its progress year by year, and side by side with the Isabella and Diana, are *sufficiently* convinced of its great superiority. I have watched this grape with much interest for some years. I *know* of its delicious flavor, its hardihood, its vigorous growth and early fruitage. I have eaten freely of the fruit of the vine, and have tasted the wine made thereof, and am free to confess that I would willingly subscribe to and sanction the most laudatory article that has ever been written in its favor. I have read what has been written *pro* and *con* about this grape. Some articles have been true, just and honest; others have been anything but such—more of unhealthy disposition than of truth in them, and may be a little of what might go by a much worse name. But these and the motives may be little minded. Self-interest gives people, sometimes, strong prejudices, and makes them appear dishonest and ungentlemanly. Yet such manifestations will have no bad effect upon any who know the grape or its originator.

Aside from all its worth as a first-rate table grape, it would be difficult to rate its value merely as a wine grape for New England. A more delicious wine than comes of it, I certainly never tasted, or wish to taste; and take it altogether, it will be a difficult matter to produce another grape combining *so many good qualities*. In so saying, I know I speak the minds of the best judges of its merits. So I am sure it will prove.

I write this article of my own free will; unsolicited and unbeknown to Mr. Bull. Mr. B. is a truthful and very worthy gentleman, one who may be safely relied upon. I have no interest in speaking thus laudatory of the Concord Grape. I do it because I know that thereby I do a good work for any one I may thus induce to purchase and grow it. There are many luxuries that may well and profitably be dispensed with; but the Concord Grape is not one of them. It is an indispensable article. Whosoever tries it fairly, will agree with me, I am sure.

I see, by an advertisement in your paper, that the price has been reduced from five to three dollars the single plant, and twenty-four dollars per dozen. If Mr. B. can afford to do so, I am glad; but I should hardly think his prices remunerative, considering all the labor, trouble and expense he has incurred in its procuration and propagation. At any rate, whether he is remunerated or not, he will have the happiness of knowing that he has done his country much valuable service.

Now, Mr. Editor, let me assure you that I never enjoyed a seat upon any cushioned mahogany half so much as a seat upon the ground under one of Mr. B.'s vines loaded with ripe, luscious grapes. Here one might be tempted to break the commandments if anywhere. To while away an hour here of a pleasant day in September—eat grapes and chat with Mr. Bull, of the wonderful and beautiful phenomena of the vegetable kingdom. One never gets a more realizing sense of the feelings of father Adam when leaving his vines and fruit trees, than comes when retiring from such a feast.

Now every one who has a house and garden, can have just such vines to sit under, just such fruit to eat, and such a place for meditation. Such things are good preachers, and better teachers of Divine revelations to our physical and spiritual bodies than many great-salaried theologians, for they root the relics of mythology and barbarism out of us much faster. They are also grand physicians to the physical and spiritual man, for they purify the stomach and the blood, and thus bring the soul to light and liberty. I can easily imagine why Mr. Bull is a happier man than the President, or any other man who recommends people to "conquer their prejudices" against slavery, to gain the "White" or any other house.

Now let me say to any one who may by any means have been induced to discredit my report, go, as I have done, and see for yourself. I can assure such they will not go away empty or disappointed. D. P.

Billerica, Feb. 12, 1855.

SIXTH LEGISLATIVE AGRICULTURAL MEETING.

Reported for the New England Farmer,

BY WILLIAM W. HILL.

The sixth agricultural meeting of the season was held at the State House, on Tuesday evening last.

Hon. E. A. HILDRETH, of Groton, Senator for Middlesex county, presided, and made some interesting remarks in regard to the general subject of agriculture. In the course of his remarks, he referred particularly to the investments in railroads, which the farmers of Massachusetts made a few years ago, and the losses which they had sustained by the transaction. The farmers of Vermont and New Hampshire, however, have reaped substantial benefit from the expenditure, which he could not help noticing in a recent visit to Vermont, where every town along the lines of railroad has a miniature Faneuil Hall market, and prices range almost as high as in Boston. He concluded by expressing the hope that the efforts of Massachusetts farmers to improve their farm stock, would prove a more profitable undertaking.

Mr. Knowles, of Eastham, followed, discussing briefly the subject for the evening—*Farm Stock*.

Mr. Copeland, of Lexington, endeavored to have the discussion for the evening directed to a single point—What are the prominent qualities to be sought for in securing an American race of cattle?—in order to arrive at some definite results; but objection was made to limiting the latitude of debate, and the subject of *Farm Stock* was thrown open to the meeting in all its length and breadth.

Mr. Knowles, of Eastham, spoke briefly, saying that the experience of farmers had demonstrated that native stock was infinitely preferable to foreign, not only in cattle, but in horses, sheep and fowls. Practical farmers, he found, placed their chief confidence in native breeds.

Mr. Proctor, of Danvers, followed. He said he was one of those who believed that we *have* a native stock of cattle, for he considered that whatever was born upon our hills, whether originating from foreign stock or not, was entitled to be called native; but he did not think them "infinitely better" than all others. For beef cattle, he was satisfied that a cross of the Durhams or Devons was superior to any thing else, yielding more pounds of beef, and growing faster, larger and fatter. For the yoke, however, nothing can excel our native cattle; he asserted this from his own experience and observation for a long series of years. When speaking of working cattle in connection with English breeds, it should be borne in mind that in England they do not know any such thing as oxen for work; they use horses. With us oxen are used on all kinds of farm work, and, after a few years, are killed for beef, a fact which is quite important in considering their value. As for animals for milk, the Jerseys produce a quality of milk which cannot be equalled anywhere; but for dairy purposes—whether butter, cheese or milk—he had yet to learn that any thing better could be got than from a cross of the best bulls with the best cows of the native stock. He knew of a dairy of native cows in Danvers, which yielded as good products as Ex-Governor Lincoln's fine blood stock; and another case in which a native cow, five years old, belonging to a widow lady, made 50 pounds of butter in 30 days, besides supplying milk for a family of four persons, and in addition another quart per day, divided between two poor families. And this with nothing but pasture feed, which he considered an important circumstance.

Mr. Brown, of the *New England Farmer*, next spoke, and alluding to the complaint of those who do not attend, that our discussions are not practical, said he would confine himself to two or three particular points, each of importance, and in which most farmers are immediately interested. With regard to oxen, it used to be the habit to keep a good pair of workers until they were eight or nine years of age, depending upon them to perform the principal team work of the farm, and then make a *business of fattening* them for the market. Having reached this age and passed the period when they take on flesh and fat rapidly and naturally, the process is a slow and expensive one, and the profit was found to be small.

Now, the farmer selects the finest steers, matches them, feeds liberally, keeping them clean and warm, subjects them to the yoke and handles them when young, and by careful and judicious management, makes them do the team work of the farm while they are growing rapidly, and by the time they are five or six years old, they have come nearly to maturity, and without a special stall feeding of two or three months, and when slaughtered make tender, juicy and rich beef, commanding the highest price. It is difficult to make cattle take on fat and flesh rapidly that have passed the natural period of growth and physical activity.

In breeding cattle, he thought there was a misunderstanding in the minds of some in regard to the axiom, "like begets like." If a heifer of any particular breed, say Durham, for instance, is coupled with a Durham bull, a pure Durham calf will be the certain result; but let her go the next year to a Devon male, and so year after year to mixed breeds, and there will be no certainty as to the character of her offspring—she will be quite as likely to go back to the first type. It is asked why our native cattle will not produce certain characteristics in their progeny. It will, as surely as a Baldwin apple stock will produce that variety of apples, if the stock taken is pure and kept pure. Mr. Brown said he could communicate to the farmers of the State a plan by which they could add to their annual income the sum of *two millions of dollars*, and he thought they would readily admit that it was a *practical* one. There are in the State 150,000 cows, whose average yield of milk for the year does not exceed four quarts per day. Now, from experience and observation, he was confident that in two ways—either by improving the breed, or by taking better care of stock, sheltering them and feeding them more liberally and systematically with roots, &c.—their milk may be increased one quart per day, which, at four cents per quart, would give the sum of $2,190,000—an addition to their annual income which was certainly something of an object.

Hon. B. V. French, of Braintree, gave it as his opinion that we have no pure Durhams here, as they have in England, Ohio, Kentucky and Illinois. Ours are crosses. The treatment of cattle is a very important matter. His man had told him that when his cows had been turned out for a couple of hours during the late cold weather, they gave two quarts less of milk—that is, they gave only 30 quarts where they gave 32 quarts previously. Cattle should be kept warm, in a temperature of 40 degrees. In feeding cattle, turnips, which can be raised cheaply, are very advantageous, saving a good deal of hay, and bringing the animals out in better condition in the spring. As to the breeds of cattle, he hoped the day would come when the State or some benevolent individual would make minute and systematic experiments, which would point out the race of cattle best adapted to the peculiar wants of New England.

Hon. Seth Sprague, of Duxbury, followed. He remarked that he was not certain that he understood any thing about the subject; still, he had his opinion in regard to the matter, founded upon the results which eminent herdsmen had attained in other countries. He believed that the laws which govern the reproduction of animals, were as fixed and determinate as those which control plants, or other natural productions, and are as capable of actual experiments as chemistry or any other science. The breeding of cattle commenced in England seventy-five years ago, upon certain rules, and the fact has there been established that any kind of cattle desired can be raised, and with a certain result. Can a pair of cattle be obtained in New England which will produce offspring exactly like themselves? Col. Jacques said he would breed cattle to order of any form or color. If we take good bred stock, we may be certain of the progeny; but with our native stock good offspring are the exception, and poor prove the rule. They are the result of a mixing of two hundred years, without regard to the laws which make like produce like, and we cannot expect to produce from this mixed blood an animal of any certain size, form, color or quality. The English herdsmen have raised their noble stocks by breeding for fifty years without crossing. If you put a Devon bull to any kind of mixed cow, the Devon blood will predominate.

Mr. Fay, of Lynn, commended the views of Mr. Sprague. He believed that a race of cattle could be obtained from native stock equal to any in the world. It has been demonstrated that we have as good milch, working and beef cattle as existed, and having all these qualities, a good breed can be obtained in twenty or thirty years. It must be done by breeding in-and-in, until a fixity of type is obtained; when the male produces a fixed type, the process has been carried far enough, and then vigor or certain qualities may be infused by crossing. There is no danger of vitiation after this fixity of type is attained. To counteract the deterioration which supervenes in animals at certain periods, a pure blood cow should not be used for crossing, but a good one whose blood is mixed as much as possible, and an animal as perfect as the male will be obtained. The hardiness or other quality of this cow will be imparted without affecting the blood race. It is the predominance of one blood over another which makes a race. If a bull's pedigree goes back only for a short distance even, and he is put with a mixed cow, a good race will be propagated.

Col. Newell, of Essex, remarked that his experience accorded precisely with the views advanced by the last two speakers. He avowed his disbelief in the notion of a stock of *native* cattle. We have none, and the reason is that no one has attempted to take so-called native cattle and bring out their peculiarities. Col. Jaques used a foreign bull in attempting to get up a native stock.

Mr. Sprague said he would admit that a breed of native cattle of a certain type might be raised, but it would be a matter of much difficulty and expense. Suppose a couple of cattle are taken, as nearly what is desired as possible, and in a year or two the head will be found too large, the body too short or too long, or some other defect appear, and it will be necessary to begin anew. The task would require a man peculiarly fitted for it by education, judgment and experience, and would be the work of twenty or thirty years.

Mr. Fay remarked that the work of rearing a new race should be commenced not with one cow and one bull, but with herds, and those young cattle. After obtaining the race best adapted to New England, with its small farms—which would be one combining in the highest degree milk, beef and work—offshoots would appear which would excel for milk, for beef and for work, separately, and we should thus get far better cows than we now have. In Switzerland, where milch cows are most prized, the bull's pedigree is closely scrutinized, to see if his mother was distinguished for her milking qualities, as it is the bull which determines the character of the offspring.

Mr. Buckminster of Framingham, said the yield of butter in this commonwealth might be increased from five pounds to ten pounds per cow per week, because we can have a race which will give it. He also offered some very interesting remarks in regard to "native" and foreign cattle, which our limits will not permit us to sketch.

Pertinent remarks were also made by Messrs. Howard, of the *Cultivator*, Merriam, of Tewksbury, and Emerson, of Boston, but we have not room for them.

We select the following from a large number of similar notices with which we have been favored from time to time by our cotemporaries:

We improve this opportunity to call the attention of our agricultural friends to the New England Farmer, published in Boston, as one of the most valuable publications of the kind in the United States. There are few farmers so well informed that they might not derive advantages from its perusal, a hundred fold beyond its cost. It is published monthly, each number containing 48 large octavo pages, at only $1.00 a year.—[Hampshire Gazette, Mass.

New England Farmer.—The August number, as usual, is filled with matter of great importance to the farmer. There are no better works reach the home of the agriculturist than this. Its articles are timely, able, and instructive—and its illustrations are fine.—[Telegraph, Penn.

New England Farmer.—The New England Farmer is a first rate monthly, devoted to agriculture, horticulture, and their kindred arts and sciences, which we unhesitatingly recommend to our farmers and reading community. Each number contains about forty pages, and the last two we have read with pleasure, finding them filled with practical, valuable and instructive articles. Several who have examined the numbers we have received were much pleased with them.—[Monmouth Inquirer, N. J.

New England Farmer.—This is one of the best agricultural papers the farmer can find. It is well adapted to the wants of the farmers in New England, and should have an extensive circulation among them.—[Greenfield Republican, Mass.

☞ We omitted last week to credit the article headed "Farm Work for September," as we should have done, to the best Agricultural paper in New England, the N. E. Farmer. It was so good we supposed all would know where it came from.—[Amherst Cabinet, N. H.

The New England Farmer, a monthly devoted exclusively to Agriculture and kindred subjects, making a fine volume of 576 pages a year. The Farmer is edited by Simon Brown, assisted by Frederick Holbrook and Henry F. French, published by Joel Nourse, Quincy Hall, Boston, at $1.00 a year in advance. The Farmer continues to maintain its high and well-earned reputation.—[Ohio Farmer.

New England Farmer.—We advise our agricultural friends who are in want of a work devoted exclusively to their interests, without being mixed up with the notions of old fogies on politics, to subscribe for the New England Farmer, which is published in a pamphlet form, monthly, at $1.00 per annum. Joel Nourse, publisher, Quincy Hall, Boston.—[Plymouth Rock, Mass.

☞ The excellent article on our last page for "Farmers' Work in March," is from the New England Farmer, one of the most valuable and sterling papers to be found in this country, always filled with valuable information, and a paper from which we can always clip much interesting matter.—[Woburn Journal, Mass.

New England Farmer.—The April number of this useful agricultural work has been received, and merits the praises that have been so universally bestowed upon it. It is, in fact, the cheapest agricultural work in the Union. It is published monthly at Boston on the first of each month, in book form—devoted, *exclusively*, to agriculture, horticulture, and their kindred arts and sciences. Each number contains 48 pages, making at the end of the year, a neat volume of 576 octavo pages. Terms $1 per annum in advance. All orders and letters should be addressed to Joel Nourse, Quincy Hall, South Market Street, Boston, Mass. —[Norristown Register, Penn.

☞ The New England Farmer, for March, has come to hand in good season, and this number fully sustains the excellence of those preceding it. It presents a valuable index for the farmer's use, besides a great variety of valuable miscellaneous reading, which cannot fail to interest those pursuing other vocations than the tilling of the soil.—[Statesman, Vt.

☞ The New England Farmer, from the columns of which our readers have seen many good articles in the Mail, is one of the best agricultural papers, for the common farmer, that comes to our table. It has recently been much improved, and in addition to the weekly is now issued monthly, at $1 a year. Mr. Simon Brown, the editor, successor to the late Mr. Cole, seems to have caught the full idea of the actual wants of the farmer.—[Eastern Mail, Maine.

☞ In the paper of this week will be found a finely written article upon "The Farm in November," which is the leading article of the November number of the New England Farmer, which has just come to hand.

Those of our farmers who do not subscribe for this work, we recommend to do so. It is among the best monthly publication going.—[Suffolk Gazette, N. Y.

New England Farmer.—This is another good agricultural paper, and we take pleasure in recommending it to the public. It is devoted to agriculture, horticulture, and their kindred arts and sciences, embellished with numerous engravings. The matter is mostly original, and from the best agricultural writers of the day.—[Expositor, Mich.

New England Farmer.—This excellent agricultural periodical, under the editorial charge of Simon Brown, Esq., assisted by Frederick Holbrook and Henry F. French, is a work which recommends itself to the attention of every farmer. This monthly cannot fail of a good support under its present management, and we hope it will meet with the success it so much deserves.—[Dover Gazette, N. H.

New England Farmer.—This valuable weekly paper, chiefly devoted, as its name indicates, to practical farming intelligence, has no superior in the excellence of its agricultural essays, and in the general tone of its news and miscellaneous departments. The two selections on our outside of last week, under the caption of "Farm Work for May," and the "Garden," should have been credited to the New England Farmer, and are fair samples of the ability and good taste exhibited in the management of the paper. It is edited by Simon Brown, Esq., formerly of Newport, in this State. Many of its best correspondents are also from New Hampshire.—[Manchester (N. H.) Democrat.

New England Farmer.—We are happy to renew our salutations of cordial brotherhood with this excellent agricultural and miscellaneous newspaper, with its first issue for the new year. And there is no paper out of the State that furnishes more reliable and valuable information, and we are always happy to see it on the farmer's table with our own sheet. The New England Farmer is edited by Simon Brown, Esq., with Hon. Frederick Holbrook and Henry F. French, Esq., as associates, (a strong team,) and is published by Joel Nourse, Boston, at $2.00 per annum.—[Granite Farmer, N. H.

☞ We exchange with a goodly number of Agricultural papers, most of them of established merit and usefulness; but among them all we peruse the columns of none with more interest and comfort than those of the New England Farmer. There is a good deal of old-fashioned home fire-side feeling infused into its language, which reminds us of the capacious hearth and glowing winter fires of long ago, while in the elements of progression and practical usefulness it ranks among the first journals in the land.—[Carlisle (Pa.) Herald.

New England Farmer.—An Independent Journal, devoted to Agriculture and General Intelligence. Terms $2 per annum in advance—Joel Nourse proprietor, Boston, Mass.

This is the best paper for a farmer we have on our exchange list, and most cordially do we recommend it. To the intelligent, enterprising young man, just beginning the world, this paper may be the means of saving fifty dollars a year, independent of the pleasure derived from reading it. To such we say, don't fail to send your two dollars for the New England Farmer. —[Ellsworth (Me.) Herald.

☞ Every farmer in Vermont, besides patronizing the papers of his own State and vicinity, should take the New England Farmer. We have known it from its "youth up," and know it to be a first-rate paper; always filled with choice and important matter for the man who would cultivate his farm and his mind at one and the same time, and do it in the best manner. We shall treat our readers to many articles from its columns.—[Vermont Watchman and Journal.

New England Farmer.—We consider this broad and beautiful sheet among the best, if not the very best family journal in the United States. The bold and manly tone evinced by its conductors upon all questions of State and National polity, renders its opinions worth adopting, whilst as a newspaper, its columns afford as abundant a supply as is needed by any family. In the immediate vicinity of its publication, its markets and local news must be particularly valuable, but the world-wide importance of its agricultural statistics is what will specially recommend it to our readers. The price is only $2 per annum, which, for a paper of its size, style of print, and manner of getting up, is exceedingly low.—[Louisville (Ky.) New Era.

☞ The New England Farmer, we would remind our readers, is an excellent agricultural paper, and now is just about the time to make the editor a "New Year's Gift," of renewed subscriptions and some new subscribers.—[Greenfield (Mass.) Republic.

☞ We know of no better agricultural paper in the Union, than the New England Farmer, published at Boston. It should be in the hands of every farmer who would know *how* to farm. —[Banner of the Union, Phila.

New England Farmer.—We call attention to the advertisement of the New England Farmer. This is probably the best weekly agricultural paper in New England. Its editor, Simon Brown, Esq., is a practical farmer, and its other writers are men who write from practical knowledge of the great branch of industry to which the paper is mainly devoted. Those of our people who wish for an agricultural paper published out of the State, will not find a better one.—[Concord (N. H.) Patriot.

New England Farmer.—This is one of the best agricultural journals in this country, and should be in the hands of every person engaged or interested in any one of the various branchs of agriculture.—[Exeter (N. H.) News-Letter.

PROSPECTUS

OF THE

NEW ENGLAND FARMER,

For 1855.

The present number commences the Seventh Volume of the NEW ENGLAND FARMER, MONTHLY, and it is the intention of the publisher that it shall exceed the former volumes in the value and variety of its contents and the beauty of its illustrations.

It is designed to make the NEW ENGLAND FARMER the LARGEST AND BEST MAGAZINE of its class in New England, and to supply such an amount of information on all subjects connected with

AGRICULTURE AND HORTICULTURE,

As to furnish the Farmer with a complete Encyclopædia of his profession. For this purpose no pains will be spared in studying the wants of the Agriculturist, and everything that will aid his occupation and increase his prosperity will be carefully noticed. Besides the reading matter, BEAUTIFUL ENGRAVINGS WILL BE USED IN EVERY NUMBER TO ILLUSTRATE AND EMBELLISH THE WORK.

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WEEKLY,

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THE

NEW ENGLAND FARMER:

A MONTHLY

AGRICULTURAL JOURNAL,

FOR THE FARM AND GARDEN.

SIMON BROWN, Editor.

FREDERIC HOLBROOK, OF VERMONT, HENRY F. FRENCH, OF NEW HAMPSHIRE,

ASSOCIATE EDITORS.

Without encouragement of AGRICULTURE, and thereby increasing the number of its people, any country, however blessed by nature, must continue poor.—SWIFT.

Vol. VII. APRIL, 1855. No. 4.

BOSTON:
JOEL NOURSE, PUBLISHER,
QUINCY HALL.

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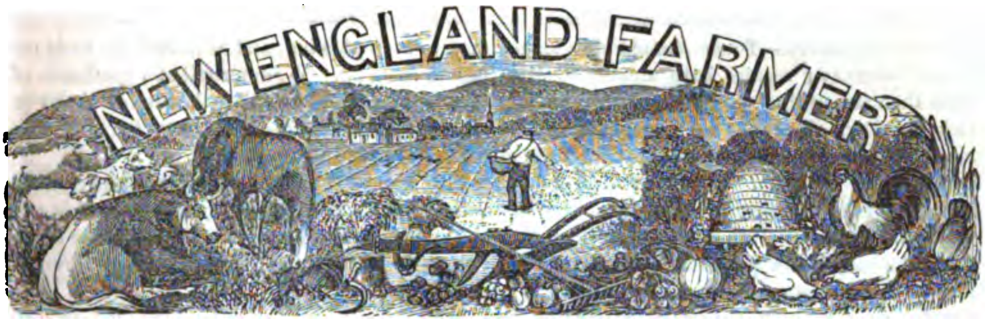
POSTAGE.—The Postage on the Monthly Farmer to Subscribers, is now twelve cents a year, to be paid quarterly or yearly, in advance, at the office where it is received.



DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

VOL. VII. BOSTON, APRIL, 1855. NO. 4.

JOEL NOURSE, PROPRIETOR,
OFFICE....QUINCY HALL.

SIMON BROWN, EDITOR.

FRED'K HOLBROOK, } ASSOCIATE
HENRY F. FRENCH, } EDITORS.

CALENDAR FOR APRIL.

"Now careful gard'ners, during sunny days,
Admit to greenhouses the genial rays;
Vines, espaliers, and standard trees demand
The pruner's skilful eye and steady hand;
And num'rous shoots and roots court the kind toil
Of transplantation, or another soil."

APRIL, showery, flowery, cold, windy, and warm, fickle *April*, has come again, knocking briskly at our doors to learn whether we are prepared for him—for of what use are bright suns and warm showers to the farmer, if his land remains undrained, unplowed, and nearly as compact as the beaten road? We trust that the soils of our readers *are* ready to appropriate all the sunshine and showers and vernal airs to themselves which fall upon them, and will feel their grateful effects until their harvests are perfected.

April, inconstant as it is, is welcomed by all. It kindles new sentiments of gratitude and love in every breast. Old and young express new joys, and look for the fulfilment of long cherished hopes. Birds begin to appear, lambs skip and frolic, the hum of insects is heard, and all animated existence awakens to new life.

And so it is with inanimate objects. The gardens are "now rendered gay by the yellow, blue, and the white striped crocuses, which adorn the borders with a rich mixture of the brightest colors. The fields look green with the springing grass, and a few wild flowers appear to decorate the ground. Daisies begin to be sprinkled over the dry pastures; and farther south the moist banks of ditches are enlivened with the glassy starlike yellow flowers of Pearlwort. And in this month Primroses peep out beneath the hedges; and the most delightfully fragrant of all flowers, the Violet, discovers itself by the perfume it imparts to the surrounding air, before the eye has perceived it in its lowly bed. Shakspeare compares an exquisitely sweet strain of music to the delicious scent of this flower:

'——it came o'er my ear like the sweet south,
That breathes upon a bank of Violets,
Stealing and giving odor.'

April, inspiring as it is, leaves a great deal of hope and pleasant anticipation for MAY—especially for lovers—because May brings the *fruition* of hope; seals the plighted vow, brings the birds, the flowers and blossoms of every delightful hue and fragrance. But we must not venture too far on that enchanting ground—other duties press, belonging to April, and they must be attended to now.

FENCES.—In the country, where snows are deep, and in places where the frost penetrates, fences become more or less broken or displaced, and need repairing. If cattle are turned to pastures to browse the bushes, as is often the case, before fences are repaired, they rove at will over other people's domains and thus acquire a habit which no fence but one of the best character will prevent. Replace fences early and thoroughly, or you will probably be electrified some hot afternoon in haying time by the announcement that your herd is destroying your neighbor's cornfield.

Timber cut in the winter will not last so long for posts as that cut in September; and good chestnut cut in September, peeled, seasoned under cover and charred the next April, will last 25 to 50 years. Mr. REYNOLDS, agent of the Copperas Works at Stafford, Vt., states that "timber which has been saturated with copperas and exposed to all weather for forty years, is perfectly sound and hard, and has become something of the nature of stone. Timber that has been soaked in copperas water, one pound of copperas to two gallons of water, will last more than twice as long as that which has not been thus prepared."

Farm Implements.—To use *that* old plow longer is bad economy; repairs have already come to more than the original cost, and still, it is an old, ricketty plow. It always did "run to land" too much, and always will, perplexing the plowman and fretting the team. It has a radical defect, past all cure of inventor or mechanic. Do not work with heavy, uncouth implements—they drag down the body like a perpetual sorrow upon the mind. Boys often acquire a disgust for farming, merely from the use of the miserable implements placed in their hands. The lighter the tool, the better, if strong enough for the work for which it was intended. The workman who uses his shovel to pry up a stone, and breaks it, should be required to pay for it, and the next time, if not incorrigibly lazy, he will probably use the bar. Use light rakes, made of good material, and so of hoes, spades, scufflers, and all other implements. We have beaten the English in the construction of our agricultural implements, in their adaptation to the work required of them. Use the Wheel Hoe, by all means—it costs less than two dollars.

Crops.—Have you assigned the particular crops to your fields?

Plowing.—"I am determined to go *one inch deeper* this spring than I did last." Well, that is a capital resolution—carry it out. Do not be in haste about plowing the wet, heavy land, because the sun, wind, and evaporation will bring it into suitable condition for planting, or sowing, quicker than you can.

Kitchen Garden.—If you have brought forward plants in hot-beds, you may transplant to the open ground this month early cucumbers, melons, cabbages, cauliflowers, lettuce, radishes, &c.; but they must be watched and protected if the nights are too cold. Clean out the strawberry beds, the currants, raspberries, and gooseberries. Stick down cuttings plentifully of such fruits as you wish to propagate. The cherry cutting will grow if put down in a moist and shady spot.

Flowers.—Encourage the women and children to cultivate a few flowers, by preparing a suitable place and procuring the seeds or roots. Depend upon it, they will bring smiles upon your lips and radiate your own heart before the summer closes.

Fruit Trees.—All kinds of fruit trees and forest trees should be transplanted before the leaf buds shall have come out. The reader is referred to former volumes for the mode of proceeding.

Plant Early.—Prepare to plant early, while the soil is moist and light. Do not believe the doctrine that it is better to sow carrots late, in order to save weeding, for it is better to pull weeds than to keep plowing, and then find the seeds refuse to come up. We never fail of a good crop of carrots when they are sowed the last of April or early in May, as the season may be, and then taken good care of afterwards.

Poaching.—The stock should not traverse the mowing fields in April, when the ground is soft and spongy. Many a man feels cross—if he don't swear—in haying time, owing to this slovenly practice.

For the New England Farmer.

USE OF GUANO.

I will give my experience in the use of this article as briefly as possible. Last spring, I took equal parts of guano and plaster, and mixed them with five parts of soil. Furrowed for corn, put a shovelful of compost manure in each hill, levelled it, and dropped in a handful of the mixture, covered it with one inch of earth and planted it with corn. It came up badly, except where the land was quite moist, where it came up well, grew well, and ripened well. Think the guano was beneficial. Pumpkins grew enormously.

Broke up a piece of ground for potatoes, and put the same mixture in the hill, without other manure, as its application for two years previous had caused the potatoes to rot. It proved a failure. On a portion of the same piece, I planted the pea-bean, furrowed the ground and strewed into the furrows a small quantity of compost, and also the guano mixture. The crop was the greatest I ever saw. Where the mixture was prepared on a spot of winter-killed grass, the weeds came up and grew exceedingly rank. I placed the mixture around some plants in the garden after they were up, without any visible effects.

Inferences.—That such plants as contain a large amount of the phosphates in their composition, will be benefited by guano. That it should be buried more than two inches in this hot and dry climate. That the farmer who has a small manure heap, may use it in limited quantities with advantage. That it will not pay to use alone. That it is better for starting than for ripening a crop. That I should again use three or four times as much plaster as guano in the mixture, especially on lands remote from the sea-board. That it is a poor article, if it will not make the nose tingle and the eyes moist on smelling it, when a lump is broken open. That I should not in any case, mix it with ashes. Finally, that the farmer must make his own manure. I can neither add to, nor subtract from this article, till I know more about it. N. T. T.

Bethel, Me., Feb. 17, 1855.

Effects of the Winter.—A note from Mr. J. F. C. Hyde, the well-known Newton Nurseryman, says, "There is no prospect of any peaches with us; every bud that I examined was killed. It has been a very hard winter for grain and grass that was sown late. Nursery trees have been thrown out by the frost more than they generally are. I find roses and many other things winter-killed."

TURNIPS AS FEED.

While in attendance upon the late National Poultry Show at Barnum's Museum, we spent a few minutes in the "Lecture-Room." Our friend, Mr. Solon Robinson, was making remarks upon the use of turnips as feed, as reported in some of the journals of the day. He took the position that they were good for nothing as nutriment, and sustained himself by giving its analysis. This is all very well, but, unfortunately, it is not in accordance with well-known facts. We used to talk in the same way, but were obliged to yield not simply to a few doubtful experiments, but to years of experience. This the speaker seemed to feel, for he admitted that "in England it might not be so." But we suppose a turnip in England is very much the same thing as a turnip in New York. He also added that they should be fed by turning the cattle in upon them, as they are growing in the field. We cannot see the force or propriety of this distinction. Is it not the same worthless thing before it is pulled, as afterwards? *Must* the cattle or sheep pull it, or bite it off, to render it nutritious? But even here there is no escape, for the English practice is, after the animal has bit off as much as is practicable, the root remaining in the ground is then lifted by a fork and left on the top of the ground, for the cattle to eat at pleasure.

We are compelled to admit that there is something in this *fact* of nutrition, that no *doctrine* of chemistry or physiology is able to explain. The fact is unquestionable, that turnips are excellent for fattening sheep and cattle, whether we can explain why it is so or not. It is equally true, as Mr. R. stated in the same speech, that about 97 per cent. of the flat turnip, as shown by a chemical analysis, consists of water. These two facts, so apparently contradictory, are entirely above and beyond contradiction. We subjoin the following, on this subject, which appears in the *Northern Farmer:*

"The vegetable I wish to recommend as the best, all things considered, for milch cows in winter, is white flat turnips. Some, perhaps, will object to the turnip, because it will affect the taste of the milk and butter. So it does if fed raw; this can be avoided by boiling. For each cow, boil a half a bushel of turnips soft; while hot, add five or six quarts of shorts, which will swell, and you will get the full worth of it. A mess like this fed to a cow once a day, will produce more milk of a good quality than any other feed at the same cost. Turnips fed in this way do not taint either milk or butter. One thing in favor of turnips as feed for cows, is, that they can be sown in August, or as late as the first of September. I sowed some as late as September, last year, which were very fine. Turnips are also very profitable feed for pigs, when boiled in the same way as for cows."—*Plow, Loom and Anvil.*

Wire-worms—their Tenacity of Life.—I have been experimenting a little with wire-worms. I took some quick lime and made a paste with it about as thick as cream, and placed six wire-worms in it, stirring them in. I went to them in three days, expecting to find them dead, but they were as smart as ever, and crawled readily out of the lime. Not being satisfied with this, I procured three or four more, put them in a glass tumbler, and poured on them aqua fortis (nitric acid) enough to cover them. They lived in it about half an hour. The acid effected them only in the mouth, their oily shell protecting them elsewhere. If any of your readers can give anything that will be effectual in destroying them, it will be gladly received in this vicinity. W. E. Vrooman.
Oswego, N. Y., Jan. 4, 1855.—*Country Gentleman.*

For the New England Farmer.

Mr. Editor:—It will be recollected that some time since you published in the *Farmer* a number of articles upon the habits of the birds of New England, written by one who is anxious for their preservation, and who, for many years, has observed their habits, when, in their migratory visits from the South, they have taken up their temporary abode in his grounds. In these articles, I endeavored to show, by their mode of living, their great benefit to the farmer and horticulturist in the destruction of vast numbers of noxious insects, the folly and cruelty of destroying them. I endeavored, also, strongly to impress upon all cultivators of the soil the importance of putting an immediate stop to the shooting of birds on their premises, by motives drawn from self-interest and humanity. My remarks, however, were confined principally to those birds found in New England, that migrate from the South in the spring, and passing the summer with us, return again in autumn. But there is another class of birds, arriving from the north in the fall and winter, that I consider very useful to the cultivators of the soil, they either remaining with us through the winter, or leisurely passing on to the South as the season advances, and returning, visit us again in the sping, on their way to their breeding-places at the north. It is to this class of our birds I wish to direct the attention of your readers, and claim for them protection. How far I have made good this claim, can be determined after reading the articles that may be written upon the subject. S. P. Fowler.

Danvers Port, Jan. 26, 1855.

THE WINTER MIGRATORY BIRDS OF NEW ENGLAND—No. 1.

BY S. P. FOWLER.

These birds form a class whose habits and mode of life are somewhat different from many of the other feathered tribes. Some of them reside in gloomy forests, and are seldom seen by man, and being provided by nature with warm clothing, they are enabled to resist the severest cold, and apparently are content with the most scanty fare; their breeding-places are in the icy regions of the North, and they are seen by us only in their migrations. In consequence of this limited time for observation, and their summer residence in high northern latitudes, we see nothing of them at home, when arrayed in their nuptial dresses. Some of the birds inhabiting these cold regions, are very hardy and robust, and covered with a splendid plumage, and possess great power of song; others are small, delicate and beautiful birds, and excite our surprise that with such comparative feebleness of flight, they should take such long journeys. They are strangers to beautiful gardens and highly-cultivated fields, never entering them except in autumn when the sear and yellow leaf is upon the trees, or in spring, when they have fallen to the ground, and before the swollen buds have expanded. We should suppose that these feeble birds, after having passed the winter at the South, might some of them be induced by the natural beauties of our ancient commonwealth, as seen in her forests, lakes, rivers, orchards and gardens, to stop and pass the summer with us, and forego their journey to the North. But this they seldom do, impelled, as they probably are, by an instinct implanted in them by an all-wise Providence, difficult for them to overcome. And did not this principle exist in all animated nature, viz., a desire to inhabit particular districts, we should see the strange spectacle of one portion of a country crowded with animals, while another portion, less attractive, would be entirely destitute of them. But by the wise arrangement of Nature as we now see it, animals, birds and plants, by their peculiar conformation, are made capable and desirous of inhabiting particular districts, and are thus distributed over the entire globe, so that no part of it, however cold, dreary and uninviting, is destitute of its inhabitants.

With these preliminary remarks, we will close this communication.

Danvers Port, Jan. 26, 1855.

[To be continued.]

For the New England Farmer.

BETHEL FARMERS' CLUB.

Messrs. Editors :—Thinking that some notice of the plan of operations in this society might stimulate others to form similar associations, I send you such information as may be of service. I think our plan will commend itself for its simplicity and efficiency.

One year ago a few individuals agreed to purchase books, to the amount of at least one dollar a share, on agriculture, horticulture and similar subjects, and loan them to the club, with the privilege of withdrawing the same, together with their connection with the society, should any one choose to do so at any subsequent time. By this means we soon obtained a library on all the subjects necessary for such an association. These are put in charge of a responsible librarian, and exchanges made at the weekly meetings of the society. We have as few regulations as possible—no two-thirds vote to tie our hands, but rely mainly on the individual interest of members. We meet at the houses of the members, take our wives with us, such as have any, and combine social intercourse with the discussion of whatever subject has been previously announced, with only one proviso—that our host shall provide us with the best fruit in his possession. This latter, however, was only an appendage to our last meeting, as we were furnished with an oyster supper, to our especial gratification.

Perhaps some account of our last meeting might be of general interest. It was on the subject of Fruit and Ornamental Trees. Among the points under consideration was the fact that the common plum trees did not produce now as formerly. The Rev. Z. Thompson stated that the principal reason was, that people in Maine had been in the habit of transplanting the suckers from old trees, and then from these to another generation, until they had completely degenerated and could not be made to bear to any extent. He doubted whether the habit of grafting on such stocks would be successful. Dr. True endorsed the statement of Mr. Thompson. He remembered trees that bore the greatest quantity of fruit thirty-five years ago. Seedlings were obtained from these which bore also ; but, during a severe winter, the tops died, and an attempt was made to renew the stock by transplanting the suckers, but they never bore freely. This practice has been carried to a great extent, especially among farmers in Maine, and had done much to discourage them from cultivating the plum. It had long been known that the apple would not succeed from such shoots, but it had escaped notice in regard to the plum. If these facts were true, they should be more generally known. The habit of Western fruit-growers of root-grafting, making two or more trees out of one original root, was of doubtful utility, although we need more information on that point. The people should know what they are about. Probably fifty thousand apple trees were set out last spring in Oxford county alone, and the most of these are western trees, though justice requires the statement that they generally appeared well in this vicinity in the fall.

In regard to the pear, it was suggested by Dr. Twitchell and others, that an agent be sent to some nursery to select trees instead of sending orders. No man would send an order for a sheep or an ox, but would be most desirous of seeing it before he purchased. The general impression of the society was that the price of dwarf pears is too high ; that a cheaper rate could be afforded for all the more common kinds. Attempts have been made to propagate the pear on the mountain ash and thorn, but with doubtful success. One standard pear still lives in this village, which is probably sixty years old, and there is no difficulty of their winter killing at the root, as in some places, for the ground rarely ever freezes before it is covered with snow for the winter. Care should be taken to tie the tops together while young, as the heavy snows will certainly split them down. The Bartlett pear, which is very tender, can easily be matted after tying round and drawing together the top with a stout cord. A very slight protection is all that may be necessary.

Remarks were made on the ripening of the grape. The practice of covering the ground with cinders from the blacksmith's shop, or with charcoal, was well calculated to absorb the rays of the sun and force them to ripen, as well as add to the health and growth of the vines. It was suggested that glass frames used for the hot-bed, might be set in a frame near to the vines which run on a wall during the period of ripening, and thus prevent the frosts.

Remarks were also made on transplanting forest trees. People had run into opposite extremes on the subject of pruning. Some had left only a stump. This would not do here, especially with the elm. New shoots would grow, but they would be almost sure to be killed during the next winter. Others had not pruned at all. This would do if the tree were an evergreen, or if all the roots and earth could be taken up with the tree; but this could seldom be done in this vicinity. Hence the practice of heading in, that is, of cutting off a portion from the extremities of all the principal branches, which would prevent that violent shock to the tree, and cause it to put forth new and healthy shoots, and give a symmetrical form to the tree, was recommended as the better course.

Other remarks were made, by different members, on these and other topics, which will give your readers an idea of what we are doing, and *how* we do it. The result of last year's operations has been to cause more fruit trees to be transplanted than in all the previous history of the town.

As the ideas advanced here are new to us, perhaps they may need modifying or confirming by those of your readers who have had more experience than a two year old society.

Bethel, Me., Jan. 24, 1855. N. T. True.

Remarks.—These are the plans of operation which are preparing the way for higher modes of culture, and for more thorough means of instruction, both in the theory and practice of agriculture. Success to your noble enterprize.

For the New England Farmer.

A GOOD BOOK.

Mr. Editor:—Though this is emphatically a book-making and reading age, when books are published and sold, not by thousands, but by hundreds of thousands, yet it is equally true, that the great majority of books that come from the fertile and swiftly-flying presses, are not fit to be read; and it is refreshing to find a new work that we can with truth call good. Such I believe the "American Muck Book," by Dr. J. Browne, to be. It is one of the best of the kind, (and the kind is good,) I have ever seen; it is written in such a style that he who runs—if he reads—may understand; and evidently by one who is *au fait* of all matters pertaining to agricultural chemistry. Every topic is treated in a clear and concise manner, and is worthy the attention of even that class of farmers, who are apt to speak disparagingly of books. This one ought to be in the hands of every person who owns or cultivates a rod of land. It is calculated to do a great deal towards removing the prejudice that has existed against such books on account of being filled with "unpractical" matter, written in a strictly technical style. And here let me quote a few lines from the author's preface. "The design of the American Muck Book, then, is not to present any novel or hitherto unheard-of theory or hypothesis in agriculture; but to collect, arrange, and condense what men of experience and sound judgment, both of ancient and modern times, have already written upon the subject, embodied in a simplified form, together with such facts and observations as have come directly under the notice of the author, and such as may safely be recommended for *general practice*, treated of at the same time in such a manner as shall come within the comprehension of the 'working farmer' who may have formed comparatively but little acquaintance with chemical science." And this is but one among the many such books that have been given to the public from time to time, by the same enterprising publisher, C. M. Saxton, of New York, who has become not a little noted as a publisher of agricultural and scientific works. In closing, let me advise all your readers to purchase a copy, and I assure you and them, that they will find their money has been well expended. J. F. C. H.

Newton Centre, Feb. 14, 1855.

For the New England Farmer.

RAISING APPLE TREES.

Mr. Editor:—Observing in the January number of the *New England Farmer* an article under the head, "How long it takes to get Apples," I am induced to send you the results of my own experiments.

In the fall of 1845 I planted with my own hand some pomace. The next spring the seeds came up finely, and by the last of August had grown to such a size, that with the exception of one, I budded the whole of them. That one was so large in its growth, so smooth, so straight, its leaf so handsome, that I was sure it would produce a good natural fruit. The buds did well, the trees the next season grew nobly, and in four years from the bud I began to have fruit. Last year a good many of the trees, which were transplanted when three years old, bore finely. In transplanting them I took pains to have large and deep holes, which I filled with compost and good soil; so that at this time, the trees have attained a size and thrifty appearance which makes my young orchard one of the best I have ever seen of its age.

I had the opinion formerly that it was the work of a life to get an orchard from the seed, but I have found out to the contrary, and as there is great pleasure in rearing our own trees, I would recommend to every one who has opportunity to make the trial, at least on a small scale.

In regard to the *one tree* I left unbudded, it proved, as I expected, a good fruit, fair, of sufficient size, ripening late in the fall.

In the whole I raised several hundred trees, of perhaps twenty varieties, so that the experiment was sufficiently extensive to test its success.

Amasa Walker.

N. Brookfield, Jan. 29, 1855.

P. S.—According to my own observation, apple trees should be transplanted within three or four years from the seed. If they are allowed to stand longer, they sustain more injury from removal.

I suppose I shall not be misunderstood as recommending the planting of seeds as the *quickest* way of getting a productive orchard. Every one must be aware that, other things being equal, trees produce in quantity according to their age, and if trees are set out seven or ten years old, they will produce a larger quantity of apples in a given time than could be got from the seed.

Cutting Roots for Sheep.—A correspondent of the *Mark Lane Express* says:—"It is a matter of impossibility for young sheep to eat the turnips without being out. I am certain that they will not thrive so quickly, and I consider that one part out of three is lost. There is this difference in cutting turnips and not cutting them: Suppose you put 100 sheep on turnips not cut and one pound of oil-cake; they will not do so well as 100 sheep put on turnips cut without any cake, neither will they be fit for the butcher so soon by two months. Let any one try it: they will find my remarks upon this matter quite true."

For the New England Farmer.

A WINTER NIGHT.

BY THE "PEASANT BARD."

It is a gusty, winter night!
The winds go howling on their flight,
And raving past my windows bright,
With furious din,
Set the wild drift, like some chilled sprite,
To peer within.

Anon he tries, and shakes the sashes;
Now at the panes makes furious dashes;
He scratches, rattles, hisses, lashes,—
In vain he tries;
But folds his white robe, "pale as ashes,"
And down he lies.

I look into the night, and spy
The tree-tops wrestling with the sky;
Now bowing, as the blast goes by,
Now tossing mane,
Like things of life, that would defy
The blast again.

It comes again; how hoarse it roars,
As through the sounding wood it pours!
The *avant courier* shakes my doors,
And fans my fire.
Now smites the Storm-king, as he soars,
His awful lyre!

There's music in it to his ear,
Who, lulled to soft repose, may hear;
But, ah! how many shake with fear
At strains so dread,
To whom it plays a requiem drear
For comforts fled!

God's creatures that are mine to keep—
The patient ox, and "silly sheep,"—
I cannot "lay me down to sleep"
Unless I know,
They're safe from these fierce gusts that sweep
The smothering snow.

While by the crackling hearth I stay,
My thoughts go forth, and far away
They follow where the mad winds play
O'er land and sea;
What tragic pictures they portray,
All truthfully!

I see the poor, less blest than I;
The tear that freezes when they cry;
I see the sons of Misery,
Begot of Crime.
When shall a guilty world espy
Millennial time?

When shall the poor by faults their own,
For all their self-abuse atone?
Let the beguiling cup alone,
Fell source of woe,
And send its train attendant prone
To shades below?

When shall the poor whom Heav'n makes so,
The widow, pale with want and woe,
And hungry orphans, born to know
That living 's dying,
Find that the prophet-feeding crow
E'en yet is flying?

I see poor sufferers in distress
Upon the watery wilderness;
How roaring surges now suppress
Their "bubbling groan,"
As down they sink, all coffinless,
To depths unknown.

I see the pensive forest-child,—
The Indian, in his snowy wild.
The drift around his wigwam piled
Is not as cold
As is the white man's "mercy mild;"—
Write, *knavery bold*.

Are all men brothers? Can we call,
Who dwell upon this earthy ball,
One God the Father of us all—
The lost, the saved?
Then why is this a luckless Saul,
And that a David?

Why made to differ? Answer 's drowned
By the great wind-harp's solemn sound.
O, never yet was answer found!
But this we know:
Man's heart is like the fallow ground;
See what ye sow!

For the New England Farmer.

SHORT-HORN CATTLE.

As the raising of stock, and the importance of improving our breeds of cattle, especially in New England, is beginning to attract the attention of the most intelligent farmers of our country, I think it will be interesting to the readers of your paper, to allude briefly to a particular breed of cattle, the fame of which is already too wide spread to require any notice from me. But knowing as I do from *actual experience*, the real value of this stock, I think a confirmation of what has been said concerning it, will be no more than justice to the public, and to the intelligent breeder who has conferred so great a benefit upon his brother farmers.

I refer to the beautiful herd of short-horns, owned and bred by Paoli Lothrop, Esq., of South Hadley Falls, Mass. I had the pleasure of examining this stock during the past summer, and was most amply paid for my journey. Mr. L.'s herd is not large, but very select, and in my opinion, is not excelled in the two important requisites, particularly for the New England farmer, of milk and beef, by any family of Durhams in our country. In breeding, Mr. L. has paid particular attention to the milking properties of his stock, as may have been seen by the statement of the quantity of butter made by his cows at different times, which appeared a few months since, in the *Boston Cultivator*, and which accords entirely with my own experience. He has bred alone from animals of undoubted purity of pedigree, which can in all cases be traced back, on the side of both sire and dam, to the three first volumes of the English Herd Book.

I have bred from bulls and cows of his herd for the last ten years, and have found that a judicious cross of his bulls with our best native cows resulted, invariably, in a decided improvement upon our stock. The high grade take on flesh when not in milk much more rapidly, and yield more abundantly at the pail, than the natives. We made from two three-years old heifers of this description, which calved about the first of

July last, being their first calves, in October, 1½ lbs. of butter each per day; they were fed on grass and ½ bushel of roots each, per day. In September, I sold a heifer four years old, which weighed 1080 lbs., dressed. She was ¾ Durham, and ¼ native, and gave milk during the winter previous. This animal never ate a particle of meal after she was a calf. She was fed on grass alone, with the exception of a few corn stocks, during the excessive drought in August. She was reared in the ordinary way, and was not an exception to our stock in general, possessing the same blood. Her weight on the 15th of June last, was 1200 lbs., and on the 15th of September she weighed 1560 lbs., having gained 360 lbs. in three months. This cow was a granddaughter of Mr. Lothrop's bull "North American," (4253) English Herd Book. A valuable acquisition has been made to the herd of this gentleman in the bull "Kirkleavington" 1st, (11640) which is a truly noble animal, possessing great vigor and fine symmetry, and will prove of great benefit to all who avail themselves of his services. This superb animal was sired by Duke of Wellington, (3654,) who was out of Oxford premium. cow by Short-tail (2624)—his dam, Lady Barrington 3d, out of Lady Barrington 2d, by Cleveland Ladd, (3407,) and hence to trace his pedigree one step further, his blood is

¼ Short-tail out of Duchess (32) by Belvidere (1706.)
¼ cow Oxford, out of Matchem cow by Duke of Cleveland (1937.)
¼ Lady Barrington (11) out of Lady Barrington by Belvidere (1706.)
¼ Cleveland Ladd (3407) out of Matchem cow by Short-tail (2621.)

It will then be seen that he is full in the best blood of the herd of the late Thomas Bates, of Kirkleavington, England, as any bull in this country, except two or three whose dams were Duchess cows, and imported at a cost of more than five thousand dollars each. B. Sumner.

Woodstock, Ct.

CULTIVATION OF SQUASHES.

John McKee, of Bristol, Vt., who raised the large squashes mentioned in the last volume of the *Country Gentleman*, page 330, has kindly furnished us with his method of cultivation, as follows :

As soon as the ground is warm enough to insure quick germination, I dig, on a southern exposure, holes two feet deep, and two feet apart each way, excluding the bottom soil and retaining the top. The holes should be filled within ten inches of the top with well-rotted hog or stable manure; the former I prefer. The holes should then be filled up with the top soil taken out, and be allowed to remain three or four days till the hills are thoroughly warmed before planting the seed. Care should be taken to plant the seeds at the proper depth to insure their coming up—in a warm, dry soil, from two to three inches; in a cold, wet soil from one to two inches deep.

As soon as the plants appear above the surface, place four bricks, blocks of wood or a small box large enough to place a pane of glass upon; this will force them along rapidly, and protect them from the depredations of the bugs, &c. They should be watered once a day, till large enough to dispense with a covering, being careful not to apply cold spring water, or at a time when the sun shines upon them. Morning or evening should be set apart for this. I think one good healthy plant in the hill sufficient, as it will produce larger squashes. When the plants begin to cover the ground, cut off all the runners from the main vine except the one nearest the root, as these will set first and produce the best. Not more than one or two squashes should be allowed to grow on a vine. Soap suds or liquid manure is good for them while growing, being careful not to apply it too strong, or on the leaves.—*Country Gentleman.*

For the New England Farmer.

SETTING OUT FRUIT TREES.

There is little difference of opinion among nurserymen and fruit growers in regard to certain important facts connected with the transplanting of trees. All agree that young trees should be taken up carefully, as many roots retained as possible, and that the roots be kept moist until placed again in the ground. All agree, likewise, that, in setting out the trees, great care should be taken to pulverize the soil and bring it directly in contact with every portion of the roots. But when it comes to the question of the proper time for transplanting trees, there is some difference of opinion. One nurseryman will tell you that all *seed* fruit (apples, pears and quinces,) should be transplanted in the fall, and all *stone* fruit (peaches, plums, cherries, &c.,) in the Spring. Another will tell you that *all* fruit should be transplanted in the fall, and another is quite as earnest in the belief that spring is the best time. So many circumstances of season, of soil, of climate, and of subsequent treatment, enter into the culture of fruit trees, that these conflicting views are scarcely to be wondered at. Nevertheless, the writer of this believes that the great preponderance of testimony will be found in favor of *fall* transplanting for all kinds of fruit trees. No good reason has yet been given why *stone* fruit should be affected differently from seed fruit, by fall transplanting. It may be that the peach, which is scarcely hardy enough for some of our winters, is injured sometimes by the harder freezing of the ground where it has been disturbed in the fall; but the easy remedy for this is the covering of the roots with a greater depth of earth than is intended shall remain upon them, thereby shielding them from the too greater severity of the frost. (*a.*) In fact, it will be found much to the advantage of all trees transplanted in the fall, to heap around them a mound of earth which will be sufficient to turn off the water occasioned by melting snow, and to keep the wind and frost from displacing them.

It is customary with some farmers to stock down their young orchards with grass the first, second, or third year after the trees are set out, and let them take their chance with the browsing of cattle in winter. Money thus invested is worse than thrown away. Trees, especially on our old lands, will not grow with the roots bound down under a crop of grass. (*b.*) The frequent stirring of the soil is absolutely essential to the growth and development of the tree. There are very few soils so poor that they will not grow fruit trees, if kept well stirred up with the plow, the cultivator, or the hoe. In fact, those who have been most successful in the cultivation of fruit for market, are of opinion that barn-yard manure is by no means requisite to the speedy growth of wood fibre; and the writer of this has grown apple and pear trees quite as fast as they ought to grow on a hard and gravelly soil, with no other manure than compost, placed in the hills of corn and potatoes planted among the trees. The stirring of the earth, in hoeing the crops, was much better for the trees than any possible amount of manure would have been, if left lying dormant with the soil. (*c.*) On no account whatever should stable manure be brought in direct contact with the roots of trees. Its invariable tendency is to canker them. If such manure must be used, let it be upon the surface of the ground, whence its juices will find their way down to the roots quite as fast as is good for them. But a better way is to dispense with stable manure entirely, and *mulch* the trees, during both summer and winter, with straw, litter from the barn-yard, potato tops, small brush, or even shavings. These substances keep the ground loose, and at the same time impart to it that constant vegetable decay, which is essential to the formation of fibrous wood. Swamp muck and peat muck are also excellent substances to place around fruit trees, whether young or old.

It is also important that judgment should be exercised in the trimming of fruit trees. Some permit them to grow with suckers at the roots and on the limbs, and others cut and slash away as though all a tree had to do was to grow itself away from the knife. Both these extremes are to be avoided. When the tree is transplanted, about as much should be cut from the limbs as will correspond with the loss of roots; and the tree should be slightly trimmed from year to year thereafter, as it developes its suckers or superabundant wood; but on no account should the larger limbs be severed, unless they are in some way diseased. They may be headed in, if inclined to grow so as to give an awkward appearance to the tree; but the severing of large limbs cannot fail to shorten life. In such matters as these, the better way is, never to listen to the suggestions or extravagant opinions of those whose knowledge is in inverse ratio to their practical experience, but to pursue that judicious course which every man's common sense will suggest, if he will but take the trouble to think upon the ordinary rules which govern vegetable life. (*d.*)

In some cases trees are set out, and a few feet of soil around their bodies kept in a mellow condition, while the grass sward occupies the remainder of the field. This is wrong. It is the earth at the extremities of the roots which needs to be kept loose, that they may extend themselves in every direction from the tree. In order to ascertain the difference between these two modes of cultivation, the writer of this, last spring, purchased at auction a dozen small peach trees. Half were set in ground planted with potatoes, and the other moiety in grass land, where the soil and sod were only disturbed sufficiently to give place to the trees. The former more than doubled their size, while the latter scarcely grew at all. It may be safely set down as a rule, that land devoted to fruit is in no danger of being too often or too thoroughly cultivated, provided the roots of the trees are not broken or otherwise injured. In fact, it is better to break or displace a root occasionally, than to permit the soil to become hard, sod-bound, or overrun with weeds. E. C. P.

Somerville.

Remarks.—(*a.*) If it can be made convenient to transplant *peach trees* in the spring, we should recommend that season. So far as our observation and practice extend, the spring has been found the most favorable. We regret our inability to give a reason for this, more than the simple fact.

(*b.*) The roots of young trees will turn away from grass, though it may be two or three feet distant, if on another side the land be mellow and rich.

(*c.*) In our opinion, there is no mistake on the farm so prominent as that of neglecting *to stir the soil sufficiently often*. It is to this fact that wheat, when sown in drills and hoed, often produces *more than double* the number of bushels per acre of that sown broadcast, and the soil not touched afterward. "Stir the soil—stir the soil"—ought to be inscribed on the trees and gate posts wherever the farmer goes. Why should the memory of Watt and Fulton be cherished more than that of Jethro Tull? If the farmers of the world would but avail themselves of his teachings and faithfully *stir the soil*, benefits as great would flow from it as have ever been conferred by steam.

(*d.*) We regret that our correspondent did not state *what season* he considers the most proper for pruning.

For the New England Farmer.

ON PRUNING.

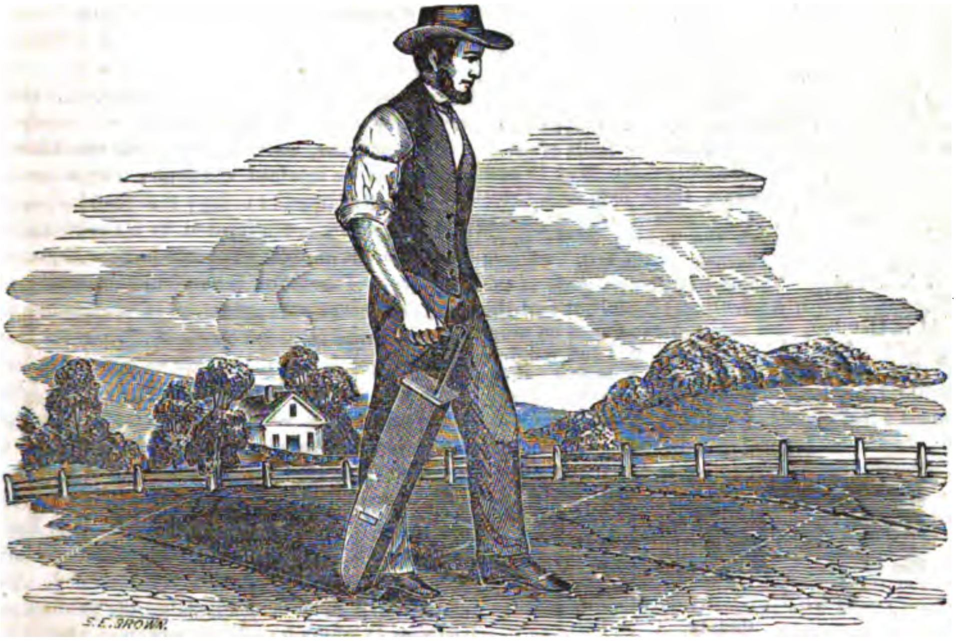
Mr. Editor: — The excellent remarks of William D. Brown, in your January number, are more to the point than I have ever seen. I have tried all seasons for pruning, and have come to the conclusion that the best time to prune is immediately after gathering the fruit.

I would trim or prune cherry trees in July; plum trees in September; peach trees in the fall; quince trees in October; apple and pear trees when the fruit is gathered. Those that ripen early I would prune early, and those that ripen late should be pruned in October. By so doing we escape any injury to the bark, and there is no fear of the sap oozing out, and the wounds grow nearly over the first season. We also avoid cracking, which often occurs in the winter pruning. Suckers can be removed at any time, but the fall is the best time to remove them. All trees should be so trimmed and trained as to allow teams to pass under them, and also to prevent cattle from browsing the limbs.

Yours truly, S. A. Shurtleff.

Cure for Burns.—The American *Agriculturist* says, "Of all applications for a burn, we believe there are none equal to a simple covering of common *wheat flour*. This is always at hand,

and while it requires no skill in using, it produces almost astonishing effects. The moisture produced upon the surface of a slight or deep burn, is at once absorbed by the flour, and forms a paste which shuts out the air. As long as the fluid matters continue flowing, they are absorbed, and thus prevented from producing irritation, as they would do if kept from passing off by oily or resinous applications, while the greater the amount of those absorbed by the flour, the thicker the protective covering. Another advantage of the flour covering is, that next to the surface it is kept moist and flexible. It can also be readily washed off, without further irritation in removing. It may be occasionally washed off very carefully when it has become matted and dry, and a new covering be sprinkled on."



WAKEFIELD'S HAND CORN PLANTER.

This implement was patented July 25, 1854, by Charles A. Wakefield, of Plainfield, Mass., and the inventor says, "is designed for planting corn, broom-corn seeds, beans, and similar seeds. It is carried and used (as represented in the above engraving) as a cane or walking-stick, requiring no delay and no additional motion and effort. Is adapted for planting in rocky and uneven ground, and in all kinds of soil. Is easily adjusted to plant at any desired depth, and to drop any required number of seeds in a hill.

"The method or mode by which the seed is planted with the Planter is new, and it is believed possesses advantages over every other, not only in facility of use, but in hastening germination.—The seed is *forced by pressure obliquely* from the surface of the ground to the required depth, thus ensuring the immediate absorption of the moisture, by bringing it into perfect and close contact with the soil under and around it, while the earth falling loosely over, cannot obstruct the coming up and growth of the blade.

"The Planter is simple in construction, not liable to get out of repair, and weighs about seven pounds, and costs the farmer only five dollars, which price he can afford to pay, if used only for planting in a common garden. With this implement one acre of corn can be planted in the most perfect manner in one hour."

We have examined the implement described above, with considerable care, and have practiced *extensively* with it on the *carpet;* and it seems to us to combine the requisite qualifications for doing the work well. Many of our best farmers do not think it objectionable—but, on the contrary, favorable—to drop the kernels of corn quite close to each other. Dropping corn is a slow and tedious process, and we hope farmers will carefully examine this and other machines for this purpose before the season of planting comes on. We have no doubt but there is a better way of doing the work than by dropping by hand.

One of these implements is left at this office, where farmers may examine and try it.

A CORN CROP.

STATEMENT OF JOEL HAYWARD, OF ASHBY.

Gentlemen: —The field of corn I present for your consideration was grown on one acre of land, and was treated in the following manner; it being of a deep loam, and inclining towards the east. It was broken up in the fall of 1852. In the spring of 1853, applied 27 loads of compost, and planted to corn, raising 78 bushels per acre. In the spring of 1854, May 9, plowed eight inches deep. May 15 and 16, spread 13 loads of green manure, and plowed 10 inches deep. May 17 and 18, furrowed both ways, three feet and three inches apart, and put 13 loads of compost in the hill, and planted with the Tuscan white corn, putting four and 5 kernels to the hill. Plowed and hoed twice. The committee on grain of the Worcester North Agricultural Society visited the field in October, and selected one rod as an average of the field, which was harvested and weighed 35 lbs. Allowing 70 lbs. for a bushel, there would have been 80 bushels per acre. I also raised 4 bushels of beans and 1 load of pumpkins.

ESTIMATED EXPENSE.

Plowing twice	$3,50
Twenty-six loads of manure	26,00
Spreading the same	2,00
Planting	3,00
Plowing and Hoeing twice	5,00
Cutting and binding stalks	2,50
Harvesting	5,00
Total	$47,00

CREDIT.

By 80 bushels corn, at $1,12½ per bushel	$90,00
Stalks and husks	15,00
4 bushels beans	8,00
1 load of Pumpkins	1,00
Total	$114,00
Estimated expense	47,00
Net profit	$67,00

For the New England Farmer.

CORRECTION.

Mr. Editor:—In the *Farmer* for Feb. 3, your printer's devil makes curious sense out of a few lines I sent you about my experiment with potatoes. Instead of "two barrels," read two pounds. For "eleven eyes to a piece," read one eye to a piece. And in the eleventh line, for "sixty barrels," read sixty pounds. And for a signature read S. Tenney instead of T. Tenney. The soil in which I planted the potatoes would have required at least twenty-five loads of manure to the acre, to have put it in good condition for corn.

I tried the experiment out of curiosity, to see if potatoes would grow, seeded at less than one-half ounce to a hill. Sixty out of seventy-five grew. Yours, &c., S. Tenney.

West Poland, Me., Feb., 1855.

Remarks.—The "printer's devil" is not fairly chargeable with *all* the errors that are committed. The word "*eleven*" was so fairly written that when the question was referred to us for a solution, we directed that it should stand as eleven, though the sense was not obvious. Writers must be careful, as well as printers and editors. In the manuscript of *this* communication, we have corrected an error which, had it remained, would undoubtedly be charged to the printer.

SEVENTH LEGISLATIVE AGRICULTURAL MEETING.

Reported for the New England Farmer,

BY WILLIAM W. HILL.

The *seventh* weekly meeting was held at the State House on Tuesday evening, Feb. 27. The subject for discussion was *Manures*.

Dr. Reynolds, of Concord, presided, and remarked, as he assumed the chair, that he found himself called upon to occupy the position unexpectedly, and was unprepared to make remarks. He then went on to observe that in New England, manures are essential to agriculture, while in some sections of our country, as in the Mississippi bottoms, large crops are obtained without it. Our climate, too, is such that it is necessary to stimulate our crops. For these reasons, it has been the great question with agriculturists how to supply these stimulants in the cheapest manner. If guano answers all the purposes which it is said it will, it is the cheapest manure there is,—that is, if we have to purchase our fertilizers. Dr. Reynolds detailed an experiment made summer before last, by a gentleman in his neighborhood. He plowed up a piece of pine plain, the produce of one acre of which he told his workman should be his, (and he would plow it,) provided he would put on 25 loads of compost manure. The adjoining portion he manured with 250 pounds of guano to the acre. The whole was planted with corn at the same time, and received the same cultivation, and the result was that the guano lot yielded double what the other did, per acre. The compost was hauled half a mile, and the expense of getting it upon the land exceeded the cost of the guano. People have complained of the guano failing the past season. He thought the fact was to be attributed, in a great measure, to its being used alone, without being mixed with compost or other manure. In consequence of this neglect, the roots of the plants have been brought in contact with the caustic guano, and the result was fatal to them. We have got to learn how to use it. The drought, too, probably had something to do with the failure of the guano. Dr. Reynolds concluded by introducing to the meeting—

Dr. A. A. Hayes, State Assayer, who commenced by speaking of the necessity of cheap fertilizers in New England, remarking that the supply was not abundant, being limited to the peat beds, the wash from the hills, and the compost of the barn-yard. He said he did not believe that lands ever "wore out," and referred to the rich acres of England, which have been cultivated for centuries, as proof. If the right method is only pursued, New England may be made what it once was, a garden. It has been supposed that there was something peculiar about New England soils,—that they would run out after a series of years, for certain crops, and then, after the lapse of a few years, again produce those crops. This, he thought, was owing to the climate. In the spring we have heavy rains, which are succeeded by an aridity or dryness equal to a desert. We have not the seasonable showers of England. If we only had them, he believed we could raise pine apples and other tropical plants, for we have a temperature as high as if only 13 degrees from the equator. We should have especial regard to climate in selecting manures, and get those which will maintain a certain temperature beneath the ground, and enable the plant to throw out leaves early and abundantly, and to sustain itself in time of drought by absorbing the dew. We know that when a plant puts out large leaves, it bears a drought remarkably well. Another element essential to the growth of plants, is the inorganic parts of rocks. The plant should be able to find some decomposing rock in the soil. But the spring time is too short to supply this element, unless we resort to artificial means. The gentleman spoke at some length in regard to guano, referring particularly to a new kind which has been introduced, the composition of which he had studied, as well as witnessed its operation to some extent. The guano heretofore used has come from the west coast of South America, where a rainless climate prevails, with a temperature of 65 to 84 degrees. It is composed of the bodies of seals and the droppings of birds. Seals, which abound in that region, always take to the shore when sick, and their bodies, with the excrements of birds, decomposed at a high temperature, and in a compact state, have produced a large amount of guano. It is composed of 26 parts of humus, or "geine," [woody and vegetable fibre, in a state of decay—*Ed.*] 26 of phosphate of lime, and a large amount of sand and moisture make up the 100 parts. Its ammonial ingredient has been deemed an essential in all manures; but there is something else besides ammonia required to produce a crop in a New England soil. There is in it a principle like yeast, causing it to ferment, and it therefore has a life-giving energy in it. It can be used with great success where irrigation can be resorted to, as it requires a great deal of water to make it beneficial. It contains all the elements needed for plants, but in a too concentrated form, and unless circumstances are such that it can react on substances in the soil, cannot benefit them. The new kind of guano is obtained on the Atlantic coast, and is produced where rains fall frequently. Although containing nearly the same amount of ammonia as the Peruvian guano, its fermentation is altogether different in consequence of the rains. Its composition is nearly that of powdered bones, the proportion of phosphate of lime being very large, amounting to from 40 to 60 per cent., while the "geine" arising from the decomposition of animal matter, seldom exceeds 16 per cent. It always contains from 16 to 18 per cent. of water. It contains a valuable acid, and a large amount of phosphate and carbonate of lime, is open in texture, and readily dissolves. It contains 40 to 50 per cent. of phosphate of lime—an absolute necessity for the growth of plants—while the Peruvian has only 20 to 26. This phosphate of lime is an ingredient which our New England soils are greatly deficient in. The notion that large portions of ammonia are requisite for plants, he considered fallacious, from the fact that after the wood has been cut from a piece of land, and it has been burnt over, it is fit for a crop; for every scientific man knows that the more a piece of ground is burnt over, the less ammonia is there, and in a piece of land thus treated, there is less than in an old pasture. By choosing alkaline manures, farmers are apt to overburden the soil. Phosphate of lime is absolutely essential, and there is no manure equal to that of the barn-yard. The Atlantic guano is well adapted to compost. One method of applying it is to spread it upon the snow in winter, to be dissolved and mixed with the earth in spring; and this method has worked very well, so far as known.

Dr. Reynolds offered some excellent remarks in regard to the importance of securing the liquid manures of the farm, as they are required to furnish the nitrogen which forms the seed, while the solids form the stem. He thought guano an excellent top-dressing, and recommended that it be applied just as the frost is coming out of the ground.

Dr. Charles T. Jackson, the chemist and geologist, was next introduced, and made some very interesting remarks. He said he was familiar with the Mexican guano alluded to by Dr. Hayes, and so far as regards the phosphate, it was a very excellent article. Some of it contains no ammonia at all, while other samples resemble very much the Peruvian. The relative value of the two he did not consider fully settled. He was not prepared to abandon ammonia as a useless ingredient in guano, or manure of any kind.

Ammonia does not act merely as ammonia in manure, but absorbs the organic matters in the soil, combines with the acids and neutralises them, and decomposes the sulphate of iron. Put a root of clover into a vessel containing an ammonical solution of peat, and another into a vessel of clear water, and it will be found that the former will, after a few days, become of a rich green color, and the solution changes its color, while the ammonia has disappeared,—showing that it is the ammonia which nourishes the plant, while the other will fade and perish. The ammonia of guano performs the same service as is obtained from any other source. Manures should not be too easily soluble, because the organic elements will be carried off by the rains. They should dissolve gradually. There is no manure better than leached ashes; it is nearly as good as guano; it contains a large portion of phosphate of lime. Recurring again to guano, he said it seemed strange to him that so enormous quantities are thrown away upon the seaboard. Their bones are phosphate of lime, and both bones and flesh can be converted into excellent manure by putting them into the compost heap, and, if dried and ground up and mixed with chalk, will constitute an excellent guano. In many places on our seacoast, fish can be manufactured into guano without the aid of South American birds, and Dr. Jackson said he was surprised that no establishments had been set up for its manufacture. The South understands the value of artificial manures much better than the North, and at Baltimore they are regularly manufactured. There are two methods of using guano, and he would recommend both ways—that is, plow in one-half and harrow in the other half. With small grains, perhaps harrowing would be sufficient. It needs a great deal of moisture. As an interesting fact, the speaker stated that peat, dried in a hot sun, contains 25 pounds of water to the 100. All vegetable matters have this remarkable quality of retaining moisture.

Mr. Dodge, of Sutton, explained an interesting experiment made by him in 1852, with two Devon steers, which were stalled constantly, for eight weeks. In that time they consumed 2035 lbs. of hay and 400 lbs. of meal, in all 2435 lbs. hay and meal, equal to 2 per cent. of the live weight reduced to hay. The solid manure was all saved, and weighed 4543 lbs., and measured 100 bushels, potato measure, 2 4-5 bushels short of a cord, worth on the farm say $6,00. These steers stood during the eight weeks on a tight floor. The manure was all collected once in each day, and left for two weeks where the liquid fell into the cellar, then weighed and measured, and the result was as above. Now here was say $5,00 of solid, and by estimate $6,00 for liquid manure to the ton of feed consumed, $11,00 worth of phosphates, to say $14,00 for hay, $5,00 for meal—$19,00; so that we lose eleven dollars worth of the phosphates to every ton of hay sold. Mr. Dodge also offered some interesting remarks in relation to the waste of liquid manures, and expressed his faith in the phosphates, if we can only learn how to handle them. Leached ashes had done great things for him, but the reason for it he did not know.

R. Morris Copeland, Esq., of Lexington, made some very pertinent remarks in regard to the importance of a proper disintegration of the soil—which he considered as important as the kind of manure applied.

Hon. Amasa Walker, of North Brookfield, also made some remarks, which were listened to with much interest in regard to the necessity of developing more thoroughly our home resources for obtaining manure—the necessity of experimenting with guano—and the facility of reclaiming old pasture lands.

For the New England Farmer.

DAIRIES—BREEDS.

Friend Brown: —Your monthly for February (page 84) brings to me the communication of "Essex," upon Dairies. May I hope to be pardoned, if I have discerned in the distance the ghost of the old Oaks cow? Her spirit seems to be rapping to us, through the whole article. My friend, whom I think I recognize, will excuse me for suspecting him of prejudice; not of prejudice towards individuals, but of partiality for, and prejudice against, *breeds* of animals.

Inasmuch as my name is used in said article, I may be allowed to examine its correctness and fairness.

Passing over the taunt about "extraordinary butter products," and taking advantage of the admission that the "products from the towns of Worcester and Barre are QUITE FAIR for the season," we come to the conclusion that they (the products) "are not better than can be found on many farms *where the pasturage is* GOOD." Now I submit to my friend Essex, if that is "*quite fair*," under the circumstances. My return was of a dairy, from a farm where the pasturage was not only *not* GOOD, but was so *poor, that, for a portion of the time*, "*the cows might almost be said to suffer for want.*"

Essex says he procured butter for his family, from a farm "where the cows have yielded an average of *a pound a day for the entire butter-making season, and in the best part of it* 9 *or* 10 *pounds a week.*" I have no doubt of it; nor do I doubt that that particular farm is one of the many that can be found "where the *pasturage is good.*"—But then Essex claims, as matter of credit for these cows, that they are "*entirely natives*," and that "Mr. Lincoln's *improved* stock have done no better."

I will not stop to ask Essex *what* constitutes an "*entirely native*," in contra-distinction to an "*im-*

proved stock;" nor to inquire *how* he has ascertained, with certainty, a fact so extremely difficult to learn. I admit, cheerfully, that there may be stock *entirely native*, since Essex asserts it; and that the dairy of Essex's friends has often made a pound of butter daily, for each cow, for the entire butter-making season. I no more doubt this, than that these cows were kept upon a farm where the "*pasturage is good.*" To clinch the insinuated superiority of "*entirely native*" cows, Essex cites a newspaper statement, that four cows, in Michigan, yielded 174 lbs. of butter and 1050 lbs. of cheese, in the space of 100 days.

Analyzed, it will be seen that, allowing three pounds of cheese to one of butter, (which is conceded about here to be the proper proportion,) this amounts to 106 lbs. of butter, per cow, for 100 days. "Mr. Lincoln's improved stock" yielded during an *actual* milking period for the whole of 141 days, 142 lbs. 6 oz. At the actual average rate of yield for 141 days, had the six cows been in milk during the whole period of trial, (five months,) there would have been, to each cow, a yield of 153 lbs. and a fraction for 150 days.

Again, in Marblehead, a few years since, four cows of a Mr. Stone, descendants of an ill-looking hornless animal that was purchased from a Hampshire drove, (and *therefore* "entirely native,") in the space of 40 days yielded 240 lbs. of butter. Pretty well, I confess, for four cows that were hornless and ill-looking, (and *therefore* native?) or for any cows. But seriously, if this last yield was claimed to have been obtained from pasturage alone, no matter how good, I should have liked just to have examined the *quality* of both *butter* and *scales*.

Because the premium was awarded to my stock, it does not follow that I claimed, or the committee conceded, the product as extraordinary. Essex will bear in mind the facts, as they appear in my statement, that I did not select my *six* BEST *cows* for butter; that my pasturage was poor in quality, and scanty in quantity; that I had to change milkers eight times during my trial; that my trial cows run with seven others, during the season; that the butter was worked upon a table, and, of course, thoroughly; and that the weight was ascertained by each separate pound, instead of in the mass, at each churning; and the whole statement not matters of loose conversation, but made under the sanction of an oath.

To the truth and fairness of one statement made by Essex, I most cordially agree. It is, that to understand a cow, "she must be summered and wintered." "You cannot," he says, "begin to form a true idea of the value of a cow, from the product of one week, or one month; it must be for the season entire, with an average fair feed." Nothing can be more true. And if our societies would offer their premiums upon such plan, I should have more confidence in the good to result therefrom.

Not by way of boasting of what Essex calls my "improved stock," but solely to induce him to hunt up a return, for an *equal period* of time, from *as many cows*, even though hornless, and ill-looking, and entirely native, I subjoin from my dairy book a statement extending from Jan. 1, 1854, to Jan. 1, 1855.

I kept 13 cows and a bull, 12 of which cows constituted my dairy, and three of these heifers with their first calves. They have been in milk for very unequal periods during the year. The greatest number of days during the above period in which any one has given milk, has been 337, and the least number for any has been 26.

To illustrate, a cow was dried the 13th day of February, and calved the 20th May, subsequently. Now, in making my account, I deduct from the 365 days of the year, the number between Feb. 13 and May 20, and call her in milk 269 days, and so with the others. I find then that the aggregate number of days' milking of the 12 cows is 2948, and the number of pounds of butter yielded, for the above period, is 2296 12-16.

Look again at this matter in another light. In 1853, I moved upon my present farm. I churned

May 9	37 lbs.	1 oz. butter
May 16	55 "	12 "
May 23	65 "	4 "
May 30	66 "	7 "

On the 13th day of May, Flora McDonald, a full blood Ayrshire cow, calved; the day previous to which I turned to pasture. I stop the account here, because previous to another churning other cows had calved. Let us see how it was in 1854, in the lot of cows in which this same Flora was placed for trial.

May 1, churned	19 lbs.	2 oz.
May 8	20 lbs.	3 oz.
May 15	32 lbs.	5 oz.
May 22	39 lbs.	13 oz.
May 29	44 lbs.	9 oz.

Two of these six cows calved May 2d; and three had calved previously. Flora calved May 20, subsequently to the time of turning to pasture.

In 1852, on a farm where the pasturage was better in quantity and quality, I kept eight cows, only one of which I now have, and

May 3, churned	21 lbs.	13 oz.
May 10	23 lbs.	3¼ oz.
May 17	26 lbs.	11 oz.
May 24	38 lbs.	
May 31	49 lbs.	3¼ oz.

What conclusion will Essex draw from this?

There is no doubt that the six cows, as Essex says, of "improved breed," in May, 1854, upon a farm where the pasturage is *poor* beyond question, made nearly as much butter as eight cows did, in the same period of 1852, where the pasturage was good, and of more than ordinary quality for butter.

The comparison of the two dairies, for these two years, can, perhaps, be profitably pursued. And it stands thus:

8 cows of 1852, in good pasturage—Butter.			6 cows of "*improved breed,*" in 1854, in poor pasturage.		
May	158 lbs.	15 oz.	May	156 lbs.	
June	181 lbs.	1 oz.	June	240 lbs.	4 oz.
July	165 lbs.	1 oz.	July	176 lbs.	13¼ oz.
August	141 lbs.	12 oz.	August	147 lbs.	6 oz.
September	120 lbs.	10 oz.	24 days in Sept.	134 lbs.	2 oz.
	767	7		854	8¼

It may be said that the last was a better butter season than that of 1852. By no means. The pasturage was better? Quite the reverse. The truth is, the stock was better, while the feed was poorer. The rapid decline from June tells the story of the pasturage, pretty well.

In 1852 I did my own milking. In 1854, being incapacitated, personally, I had eight different milkers; while, during both periods, the best dairy woman in the world (my own wife) had sole charge of every thing; doing all the work, with her own hands.

I, at least, must speak well of "improved stock," since my present stock is composed of what would be called such, with the exception of one animal.

The eight head of 1852 produced 1226 lbs. 9¼ oz. butter. They should be credited in addition with cream for the family.

The twelve head of 1854 yielded 2296 lbs. 11 oz. butter, as weighed in so many distinct weighings. One milking daily of one of these cows was taken from the dairy, from the early part of August till the 23d day of November.

It will be seen that, with a poorer pasturage in 1854, I have added 470 lbs. to the yield of my dairy, above what the increase in the number of animals over 1852 would have led me to expect. How will Essex account for this? It seems to me there can be but one explanation.

Still, I do not look upon this comparison as at all *fair*. To satisfy me, the comparison should be made by a trial of an equal number of cows, of improved and native breed, kept upon the same farm, milked by the same person, and the whole dairy under the same management. If the trial was continued for a year, we should lay a foundation for judging about breeds of animals. If, after that, the experiment could be conducted by some half dozen different persons, in different parts of the State, we might hope to settle the question, so far as the farmers of this State were concerned.

In conclusion, by way of concession to the "entirely native" feeling of my friend Essex, let me say, that, were I to have remained upon my present farm another year, I should have discarded from my dairy a full-blood and a ⅞ Ayrshire cow, not, however, because they were inferior milkers, but, because being *superior* milkers, they were not above the average of cows for butter.

Yours, in *great length*,
Worcester, *Feb.* 17, 1855. W. S. Lincoln.

For the New England Farmer.

LETTER FROM MR. FRENCH.

A Yankee Farm near Washington—Apples and Peaches—Pear Tree Blight—Draining—Oxen and Mules—Subsoiling—Shell Lime—"The Peculiar Institution."

Lest our readers should be too strongly impressed with views of the shady side of agriculture in this district, let me give them a glimpse of something brighter.

Yesterday, on the tenth of January, when I suppose all New England was frozen as hard as an iceberg, I made, with the owner, a visit to the farm of Mr. William M. Morrison, of this city, and observed, with much pleasure, the application of "northern principles" of agriculture to southern soil. Mr. Morrison's farm contains about a hundred and twenty acres, and lies near the Rockville plank road, four miles from Washington. He is a New Hampshire man, a native of Sanbornton, and, although he has been thirty years away from the Granite hills, has not forgotten his native State, or lost his taste for cultivating the earth, acquired on his father's farm in boyhood.

He bought this farm about four years ago, for thirty-five dollars an acre. It was then destitute of buildings, and almost without fences. He has erected a pleasant though not expensive house, and a barn on the New England plan, with a tie-up for his cattle—a luxury to which the cattle in this region are very little accustomed; most of the steeds and heifers of three years old never having seen the inside of a barn in their lives. His land is rolling, a part a sandy loam, with a clay subsoil, and a part clay loam, with a considerable extent of what we call swamp land, of a dark alluvial character. It looks much like a Middlesex county farm, entirely free from stones. The fences, which divide it into three or four enclosures, are of chestnut posts and rails, four rails high, such as we see in some parts of New England. Mr. Morrison has fenced off forty acres for a pasture, which he is improving, and is giving great attention to the raising of hay and fruit. He has already planted about one thousand apple trees, six hundred of which are Baldwins, about twelve hundred peach trees, six hundred plums, and seven hundred pear trees.

He has fears that the Baldwin may prove too early in this latitude, and now prefers some varieties which originated further south, and ripen later. His trees, most of them, look thriving. Many, however, have marks of injury, which he attributes to the locusts, an enemy with which fruit-growers at the north have not been much acquainted. The trees are yet so young, that it is too early to be confident of their success, and although I see daily fine apples in the market, said to be raised in the neighborhood, I have looked in vain for an acre of what at the north we should call a good orchard, in bearing. The care, however, which we bestow upon our trees, is entirely unknown here, and it is to be hoped that our friend may find abundant success in his fruit-growing. His pears, which are mostly dwarfs, have suffered very much from the blight, which, like some diseases in the human system, seems to select for its victims those of fullest life and vigor. Many almost perfect trees, six feet or more in height, were shown me, utterly blasted. Mr. M. attributes their destruction to the heat of the sun; but, whatever it may be, the symptoms and result appear to me to be the same which we everywhere see and hear of, under the name of *sap-blight*, and the like, and as to the causes of which, as about most other matters, "commentators differ." Mr. Morrison philosophically remarked that he could go out and *cry* over his pear trees, if it would do them any good; but he did not see that it would. He thinks the peach rather an uncertain crop even here, as it seems to be everywhere.

As to his grass lands, he is pursuing a thorough course of draining and thoroughly subduing. His drains are three feet deep, or more, most of them covered. They are made by placing short logs across, and covering with old rails, and then with sods, bushes, and roots, deep enough to be below the subsoil plow. His meadows seem to be full of springs, and to require more ditches than any land I have ever seen. Hay usually sells at twenty dollars or more a ton, and upon land like this, which will produce as well at least as our best grass lands, hay must be a profitable crop. He sows his herds-grass, or timothy, as he calls it, in the autumn, and clover in the spring, as we do, on most of our reclaimed land. He has some forty acres in grass, most of which has been reclaimed, at an expense equal to that of reclaiming our worst swamps. We found his team of four oxen engaged in plowing his orchard, (on the 10th of January, remember,) with a Boston plow and a Yankee driver. These oxen were purchased by Mr. Morrison, in Brighton, Mass., and brought here, at an expense of about fifty dollars a yoke. I saw a fine yoke of oxen at work a few days, on the capitol grounds, moving blocks of marble, and remarked to the contractor that they looked like northern cattle, when he informed me that he brought them from Massachusetts.

Although there are plenty of bullocks raised and driven into market here for beef, suitable for work, yet most of them have never been yoked. Mr. Morrison has tried mules for farm labor, and is of opinion that, except for the heavy work incident to clearing new lands, they may be more profitable than oxen. They are more hardy, less expensive to keep, and much longer lived than the horse. Indeed, a negro, of whom I inquired how long they lived, gravely informed me that he had heard a great many men say that they never saw a dead mule, and his inference seemed to be, that they never die at all! I have long had the impression that mules might be profitably employed in New England, on our farms; and were it not that they are so *unnatural* a production, I should be glad to see them tried among us. Mr. M. is trying the subsoil plow thoroughly, on his farm, running it to the depth of seventeen inches, and has full faith in its utility.

He has horse teams, carrying stable manure from the city daily to his farm, having purchased for three hundred dollars all that is made at a stable, which will give him about a two-horse load daily. He showed me also a lime-pit where he had burned about a thousand bushels of oyster shells, much after the fashion of burning a coal-pit. This lime he applies broad-cast, at the rate of one hundred bushels to the acre. He considers corn his best crop, and in good seasons gets sixty bushels to the acre. He raises rye also, to considerable extent, and finds a market for the straw at about fifteen dollars a ton. He uses rye and corn, ground together as provender for his horses. He cultivates his crops very much in the New England style, employing free labor entirely on his farm. The price of labor here does not differ materially from New England prices. It is notorious that slaves do not perform so much labor as freemen, here or elsewhere, and when we add to this, the fact, that they always steal whatever they can lay their hands on, we naturally enough infer, that they are rather unprofitable stock. I suppose the poor uneducated creatures cannot understand their moral obligation to do all the work for the benefit of others, who do none! Everything here is kept under lock and key, and it is said not to be an uncommon occurrence for the servants to steal and sell the grain allotted out for the provender of the horses in their charge. Mr. Morrison had two big dogs chained near his house, which are let loose at night, to prevent pilfering about his premises. I suppose three-quarters of the corn-barns in New Hampshire were never locked or otherwise guarded, except by the consciences of the people, and such considerations are to be weighed, by northern men, who are tempted to seek a home, under different institutions from their own.

The question of emigration from home comes up to every New England youth, and I know of no better service that can be rendered to New England, than to present fairly to view the advantages and disadvantages of a life in other parts of our country. Henry F. French.

Washington, D. C., Jan. 11, 1855.

APPLES—THE RIBSTONE PIPPIN.

There are many varieties of the apple which appear to be susceptible of successful cultivation in almost any variety of soil, and indeed, in almost any position in which it may be found desirable or convenient to place them. There are others, on the contrary, which are more fastidious, and which can only be made to grow in the richest and most affluent soils. Of this latter description, we may mention the Ribstone pippin, which is certainly, in many respects, a most desirable and valuable fruit, and one that deserves to be extensively cultivated in every region where it can possibly be made to grow.

Ives, (in his "Book of Fruits,") suggests that the best soil for it is one rather moist and warm; and Mr. J. W. Russell, in a communication on the Ribstone, published in "*Hovey's Magazine of Horticulture*," Vol X., says that, "Trees of this kind of apple, growing on a flat level plain, ripened their fruit about three weeks too early, therefore did not keep so well through the season, as those that were not so early matured."

His remarks on the cultivation of the trees, strikes us as well worthy of attention.

"In fact the situation that is not unfrequently supposed most eligible, experience finds to be the reverse. A southern aspect is often preferred, which is dicidedly the most unfavorable that can be selected for this particular apple.

"I believe we have much to learn in the choice of the most favorable localities, before we shall be successful in the cultivation of some of the most superior apples not natives of America. A north-west slope I should prefer to any other for reasons thus: the tree would not start to grow so early in the spring; the roots would not suffer so much with the summer drought; and last but not least, the fruit would be larger and finer, and would not ripen so early by a fortnight or three weeks. A rich deep soil, rather wet than dry, is best adapted for the apple tree, (generally)—land half covered with rocks, that cannot be well cultivated with the plow, would be a desirable locality, especially in a dry season, as the trees would not suffer with the drought."

For the New England Farmer.

GUANO AND SUPERPHOSPHATE ONCE MORE.

My Dear Brown:—I have been trying to collect the results of experiments in Rockingham County, with guano and superphosphate; but as a general thing, farmers had rather work than write. I send, however, a valuable letter from Mr. Little, of Hampstead, a good, reliable man. His suggestion that crops manured with these fertilizers require little hoeing, is worthy of notice. No doubt most of the weeds which cost us so much labor to eradicate, spring from seeds which we sow with our barn and stable manure. The new, unmanured lands of the West, require little or no hand cultivation.

I think well of Mr. Little's conclusions, for the same reason that a client once gave me for liking my opinion. "'Squire," said he, "I like your views better than those of any lawyer I ever saw, *because you think just as I do!*"

Yours, truly, H. F. French.

Hampstead, Feb. 15, 1855.

Henry F. French, Esq.:—Dear Sir,—After considerable delay, I have prepared for you a statement of my experiments with guano and superphosphate of lime. In the spring of 1843, I was short of stable manure, and it being difficult to obtain it, I resolved to try some of the concentrated manures. By referring to the various agricultural papers, I found that nearly all the popular writers agreed that guano was a valuable manure; but as to superphosphate of lime, their statements were so contradictory, that nothing reliable could be obtained. I determined to test the value of it by comparing it with other manures; and not caring to risk much on an uncertainty, I purchased only one bag of De Burg's superphosphate of lime, and one of Peruvian guano. Before using it, I mixed it with plaster, equal proportions, and applied most of it to corn, reserving some for other purposes. My ground for corn contained about 1½ acres; two-fifths of it had been planted with potatoes the previous year, manured in the hill with plaster, and a slight coat of green manure plowed in; the remaining three-fifths grass land, all in poor condition, and rather light soil, a part of it dry, but some of it quite moist. I plowed it about the last of May and planted it about the 6th of June. Upon the two-fifths old ground, I spread twenty-five dollars' worth of manure from the barn before plowing; the remainder, sward land, I sowed eight dollars worth of guano, and superphosphate of lime, first a strip of guano, then one of superphosphate, and so on, throughout the piece, harrowing it in thoroughly.

I planted in hills 3½ feet apart each way, and kept the ground as level as possible. From the part manured from the barn, I obtained a heavy crop, from the other a fair crop, stalks rather light but good ears. I did not measure it, but am satisfied that it was better in proportion to the expense than the other piece. I could see no difference between the guano and superphosphate of lime as sown broadcast. I selected twelve rows, six on each part of the piece. To three of each of these, I applied guano in the hill, to the rest, superphosphate of lime, about a table-spoonful to the hill. The guano, I covered with my boot, as I dropped the corn; the consequence was, it was not covered deep enough, not more than a quarter of it vegetated, but what there was of it was much better than where it was not applied in the hill. The corn in the rows that I applied superphosphate of lime to, came up well, and looked finely, took the lead and kept it throughout the season, and were decidedly the best rows of corn I had upon the piece. The difference was not so marked upon the part manured with stable manure as the other. I applied superphosphate of lime to half of a small bed of beets, and the product of that part was nearly doubled by the operation. I sowed ten rows of turnips on a moist piece of land prepared as follows:—furrowed the rows 3 feet apart, strewed the manure in the furrow, turned two furrows upon it, forming a ridge, and upon this sowed my seed. To six of the rows, I applied manure from the barn and night soil mixed with twice its bulk of decomposed saw-dust; to the remainder, guano with the exception of part of a row for a trial of superphosphate of lime. The result was, that I had more baskets of turnips from the four rows manured with guano, than from six where the manure was applied; the cost of the guano was not half that of the manure. I could not perceive any difference in the yield of the turnips on the part of the row where superphosphate of lime was used from the guano. They were smoother, and would sell better for table use.

In 1854, I bought of George Davenport, of Boston, a half-ton of De Burg's superphosphate of lime, and the same quantity of Peruvian guano, for my own use and that of my neighbors who felt disposed to try it. A little more than half of it was taken off my hands, mostly by one individual, who applied it to grass, corn, potato vines, &c., without any other manure, with complete success. He had as good corn from a table-spoonful of guano in the hill buried three inches deep, and the same quantity of superphosphate on the top of the hill before the seed was dropped, as from the rate of 40 loads of stable manure to the acre, side by side. I planted the same piece with corn that I did the year before, giving it a good dressing of manure from the barn-yard before plowing, and using superphosphate of lime in the hill, with the exception of some rows for other manures. I selected rows both from the dry and wet parts of the piece, using guano dug in around the hill, after the corn was up, salt around the corn on the surface, ashes both in the hill and on the surface, and plaster in the hill. The salt put the corn back one week and injured the crop. Ashes applied in the hill injured the corn, on the surface benefited it, plaster about the same, superphosphate of lime much better than either.

The guano produced heavier stalks than the superphosphate, but no better ears. In making these trials, I used three rows for each kind of manure, leaving one row between each kind without any thing applied to the hill. I obtained as good corn from that part of the piece, where I applied guano and superphosphate the year before, as from the part manured with stable manure, with the exception of a small part where there was a small per cent. of fowl manure mixed with it. This produced larger crops both seasons.

I selected six rows in a piece for potatoes, two for guano, using a table-spoonful in a hill, two for superphosphate, using the same quantity in the hill. To the remainder, I put a shovelful of green manure in the hill.

The guano rows yielded	4 bushels.
The superphosphate	8¼ bushels.
The stable manure	3¼ bushels.

I had about three-quarters of an acre that had been planted with potatoes the previous year, using plaster in the hill, without any other manure. This piece was flat, rather moist, and in poor condition, and I selected it expressly for a trial of concentrated manures. After plowing it, I sowed 150 lbs. of guano, harrowing it in as soon as possible, mixing it thoroughly with the soil. I then furrowed it the usual distance for potatoes. In half of the first row I strewed guano, in the other superphosphate of lime, covered it lightly, and planted with pumpkins. The row yielded well, but the part where superphosphate of lime was applied, much the best. I then took eight rows for potatoes, planting them in drills. In two of them I applied guano, and received six bushels of potatoes. To the two next I applied superphosphate of lime, and received 5¼ bushels. Two were liberally manured with ashes, and from these I obtained five and one-fourth bushels. In the other two, plaster was used, and from these I dug only three bushels. I do not think I received any benefit from the plaster. In half of the next row I used guano; in the remainder superphosphate of lime, formed it into a ridge, and sowed it with cabbages. The result exceeded my expectations. I obtained much better heads than I generally do, when manure from the barn is applied. I next sowed eight rows with turnips, manured four with guano, the remainder with superphosphate. They looked finely the first of the season, but the severe drought and the plant lice, combined, completely ruined the crop. The remainder of the piece I planted with potatoes, using plaster in the hill. The yield was very light. The quantity of guano and superphosphate of lime used in the foregoing experiments, was equal.

I prepared a piece of ground for carrots as follows:—first plowed it, then sowed guano at the rate of two or three hundred pounds to the acre; plowed it again, then sowed about the same quantity of superphosphate of lime, and harrowed it in. I obtained a much better crop than I ever had on the same, when stable manure was applied.

The best crop of potatoes, both as to quantity and quality, I raised upon a piece prepared by plowing in a dressing of stable manure, using superphosphate of lime in the hill. I had a fine yield where both superphosphate of lime and plaster was applied in the hill without any other manure. The soil upon which I conducted my experiments is rather moist, with a good supply of vegetable matter. A light, dry soil, deficient in vegetable matter, would be likely to give a different result. My neighbor's experiments on a dry soil resulted in favor of superphosphate of lime. On a moist soil, guano took the lead. I sowed while raining, some guano, on a piece of grass. The result was very marked, changing it to a dark green color, and increasing the quantity considerably. Judging from my own experience and observation, I have come to the conclusion that both guano and superphosphate of lime are valuable fertilizers, and will pay well, if judiciously applied to root and corn crops, reserving the barn manure for the benefit of the hay crop, which I consider the most important. I think guano in a crude state is better adapted to a moist than a dry soil. This, I think, is owing mainly to the presence of a larger proportion of vegetable matter in a wet soil. I think when applied to a dry, light soil, it should be mixed with decomposed muck or loam.

Superphosphate of lime, when properly prepared, I consider a better proportioned manure, and better adapted to perfect all parts of the plant, than guano. Hence the result depends much upon the nature of the soil. Taking into consideration the labor saved by hoeing and in applying superphosphate of lime to corn in the hill, and the fact that it will not injure the seed to come in contact with it, I consider it the best preparation I know for that purpose, and shall continue to use it until convinced to the contrary. I have not been so minute with my experiments as I should have been, had I expected to communicate the results to you.

If these few lines are of any use to you in making up your statement, they are at your service; they were due long ere this, and I have no apology to make for the delay.

Yours, truly, WM. C. LITTLE.

CAROLINA CULTIVATOR.—Published at Raleigh, N. C. WILLIAM D. COOKE, Publisher. $2,00 a year. In its inaugural the Editor says:—"It is too common to read, assent, and then *forget*. It does more harm than good for a farmer to read practical lessons for mere amusement. It generates a habit of indifference to improvement which is hard to shake off. Let our readers, therefore, be punctual in putting every valuable thought which they may find in books and papers on the various branches of agriculture and the kindred arts, into immediate use, and our word for it, they will have the satisfaction at last of witnessing a decided improvement on their own premises and around them."

SHEEP BREEDING—FINENESS vs. SIZE.

Whoever, therefore, would obtain a large and vigorous race, [of merino sheep] should keep his ewes from the rams till they are three years old. Rams are not usually allowed to leap till three years of age.—*Thaer's Principles of Agriculture*, *p.* 539.

That the size of sheep would be enlarged by the above course there can be no doubt, but, allow us to ask, what are the advantages to be derived from increase in size. Most assuredly *the amount of wool* would be diminished in its proportion to the size and consequently to the amount of food consumed. The principal advantage that I can perceive to be derived from the above course is in the increased longevity of the animal. For, from my experience in the matter, I am satisfied that sheep, male or female, will attain a greater age by not being allowed to breed until three years old. If kept in moderate condition, getting neither too fleshy nor too poor, they will frequently last and be profitable till they are twelve or fifteen years old. I have now one twelve years old, that raised her first lamb at three years, and now has as good teeth as any in my flock, and is apparently in her prime except that her fleece has become coarser and somewhat lighter.

But among the advantages of pursuing the above course, to the wool-grower, whose flocks must be limited to a certain number, is the small number of breeding ewes he will be enabled to keep in consequence of having so many younger sheep. The successful wool-grower will endeavor to raise sheep, as well as wool, for sale. If young sheep are kept so as to get twelve months growth in a year (which is frequently not the case) there is no difficulty in breeding from them at two years old, and raising a flock that will be sufficiently large and hardy for mutton and wool-growing purposes, and that will last and be valuable until eight or ten years old. Such a flock will produce finer wool and more of it in proportion to the amount of food, than one forced to an unnatural size. I have used bucks at different ages, from six months to five years, and have had as good success, and raised as good lambs from those that were one and a half years, as at any other age.

In breeding sheep for wool, we should also pay some attention to form, which is of much more importance than size, so far as its adaptation and value for mutton is concerned. If merino sheep measures from the withers to the root of the tail, and from the withers to the nose, and likewise from the withers down the fore leg to the hoof, alike; and the three lengths put together or three times the length from the withers to the root of the tail, being put around the sheep lengthways, passing the string under the neck and around the thighs, and the sheep is broad enough to fill the string, it may be considered a very justly proportioned animal.

But the most important part, and that which has caused the greatest variety of opinion, is the fleece. When I first commenced in the business, some twenty-five years since, the strife was for the finest wool without much regard to any thing else. The first question asked was "How much did you get?" But the tables are turned; people have taken the other extreme. The great question now is, "How much will they shear." But without designing to tread on the toes of others, I will give a description of such as would suit my fancy, and such as I believe will eventually be sought for. The sheep should be of medium size, the ewe weighing when full grown, from 80 to 90 lbs., the skin loose but not rolling in folds, the fleece thick, particularly on the belly, and extending well down on the legs and face; the staple uniformly of one length—from two and a half to three when of a year's growth—the curves plain and uniform as possible, from one end to the other, and not less than twenty-four to the inch—if more the better—the fleece sufficiently oily to render it soft to the touch, and the surface a little dark. If the fleece be entirely destitute of oil, the wool becomes harsh and wiry; on the other hand, if there is an excess, it must be at the expense of the fleece, as well as carcass; being made from the same materials, and causing the fleece to be thin and light after being cleansed, and the sheep hard to keep. Both extremes, particularly the latter, should be avoided.—*Wool-Grower*

ECONOMY IN THE RIGHT PLACE.

Men who have made fortunes tell us that it is much easier to acquire property than to keep it. Whether this be true or not, we have not had very ample means to determine, but are convinced that it is much more difficult to expend money judiciously, than to earn it. We know this, from experiments in a small way, ourselves, as well as from observations on the rest of mankind. Almost every man who will make up his mind to have money, and devote his time and energies early and late to this object, will succeed in his undertaking. But there are various difficulties in the way of spending it to the best advantage, arising partly from the fact, that every man intends, when he gets enough, to change his mode of life, and adopt one more agreeable. One man leaves his country for half a generation, and having made his fortune, returns to find his youthful friends all dead, or forgetful of him, and the whole world so moved away from its former position, that he cannot find the place in it which he formerly occupied. His money cannot buy for him the smiles and sunshine of which for years he had been dreaming, under a foreign sky.

The city merchant looks anxiously forward towards the day when he shall close his counting-room, and turn his back upon the perplexities of his business, return to his native village in the country, and re-purchase the old homestead, and then spend his declining years, under his own vine and fig-tree, in the delightful pursuits of agriculture. But, alas! a life of care and luxury in the city has unfitted him, as well as his family, for simple rural pleasures. His wife is tormented for want of faithful and capable servants, his daughters sigh in vain for the promenade on the pavement, and for the opera, and even the good citizen himself begins soon to suspect that the "old familiar faces" on 'change, or at his favorite resort, the insurance office, are more agreeable companions than cows and oxen, or even the farmers about him, who know so little of freights and the stock exchange.

The leading thought, however, with which we started, related more particularly to expenditures by the farmer, upon his own house and lands. He can calculate pretty accurately, as to the expense of plowing and ditching, and the common labors of the farm; but our thoughts extended beyond this, to the time when having acquired a little surplus, he undertakes to adorn and embellish his residence. Here he is beyond his usual depth, and has not his usual landmark to guide him. He desires to erect a stable or barn, which he thinks should cost some five or six hundred dollars. He sets out with the sensible idea, that it should be a plain, substantial, modest structure, for cows and horses to live in. He consults a carpenter or architect, who persuade him to allow him to take charge of the building, and presently, by the side of his simple mansion rises a sort of cross between a martin-house and a temple of Minerva, clap-boarded and painted, with the doors hung in all the new-fashioned methods, so that they will neither open or shut, with a tall ventilator and a magnificent weather-vane on top—the whole resembling less a farmer's barn, than a village church, erected under the direction of a committee of nine pew-holders. Now these fancy out-buildings are well enough on fancy places, but are in bad taste, to say the least, on a farm, where economy is consulted; and the worst of it is that the owner finds, when it is completed, that his barn costs twice as much as he could well afford.

Then, again, he determines upon having a better *fence* in front of his house. The carpenter shows him a beautiful pattern, which is like 'Squire Wealthy's, in Roxbury, and persuades him to adopt it. The work is completed, and behold a small *front* yard, as we call it in New England, just as wide on the street as the dwelling-house, and running straight to the front corners of the house, enclosing three or four square rods of ground! and for what purpose? Kind reader, did you ever ask yourself for what these little *front yards* are designed? Usually, they contain a few lilacs, half-a-dozen rose-bushes, and occasionally a small flower bed. The flowers and shrubs we like, but the expensive fence we do not like. Often a hundred dollars are expended in this way for as many feet in length of such a fence. Instead of this, we would either construct a plain fence of pine, painted, which should not cost more than two dollars a rod, or we would plant a hedge of buckthorn or privet, supported by a wire fence, for strength, if necessary. In every case, we would avoid running straight fences from the street to the house, and would leave a liberal plot in front, and if possible, at one side or both, graded and finished *as a lawn*. But let the fence be plain and cheap. There is no beauty either of symmetry, harmony or utility, in such front fences as we may see in every village in New England. Save your money to gratify some correct and rational taste, and do not follow an unreasonable fashion. Use the reason, the plain common sense which Providence gave you to use, before you suffer your hard-earned money to be taken from you, to gratify a carpenter's foolish ambition to work out a more elaborate piece of architectural folly, than has ever before been presented to the public. We have noticed so much of this display of squares and crosses and triangles in our travels lately, that we think we shall feel better after having spoken our mind on the subject. We think the people of the rural districts, especially of the *villages*, have yet many lessons of economy to learn, in the structure of their houses, out-buildings and ornamental fences. How to expend a limited amount of money so as to produce the greatest amount of physical comfort, intellectual gratification and moral improvement, is a problem well worthy of attention.

COUNTY TRANSACTIONS.

We are under obligations to gentlemen of the several County Agricultural Societies for copies of their Transactions for 1854. We have received copies of the Franklin County Society, Bristol, Berkshire, Middlesex South, Housatonic, Hampden, Norfolk, Hampshire, Worcester and Essex. Each of these Transactions contain papers of value to the farmer, which we should be glad to spread before the reader did our limits permit,—and where any new mode of operation, new and valuable designs of implements, or methods of making or preserving manures are noticed, we shall endeavor to publish them. Our acknowledgments are gratefully tendered to gentlemen who have kindly supplied us with these reports. Norfolk, Bristol and Middlesex are beautiful specimens of the typographic art.

☞ The *Norfolk Herald* announces to the farmers of Virginia and North Carolina, that the corn dealers in that market have come to the determination to buy and sell corn by weight on and after the 1st of April next.

EIGHTH LEGISLATIVE AGRICULTURAL MEETING.

Reported for the New England Farmer,

BY WILLIAM W. HILL.

The *eighth* meeting of this series was held in the Senate Chamber, at the State House, on Tuesday evening. The reason of its not being holden in the Representative's Hall was, that the hearing in regard to the removal of Judge Loring was going on in that room. The subject was the same as at the last meeting—*Manures.*

Hon. B. V. **FRENCH**, of Braintree, presided, and on taking the chair, made some pertinent remarks upon the subject of manures. In regard to the use of guano, he had been informed, by a merchant of Baltimore, that he could see the effect of the use of guano in the increased receipts of flour in that market—that it came in from sections they never thought of. But it is becoming a great question, how does it leave the land? So far, the opinion is that the land is impoverished by it after a few years. He had been informed, by the captain of a vessel who brought guano to this country, that guano is not used on the farms in Peru. The planters do not value it, and it is said that it finally gets the land in such a condition that nothing will grow but weeds. Still, it is an open question. In regard to barn-yard manures, we *do* know what effect they produce, and it is of great importance to the farmer that they be saved and made the most of. To show their value, he entered into a calculation in regard to the value of the manure of the domestic animals in the Commonwealth—embracing both liquid and solid—from which it appeared that it is worth $8,000,000 per year. In order to save manure, it should be kept under cover, composted and enlarged in quantity; and by this means a man's hay crops may be increased, and he will be enabled to add to the number of cattle he keeps. In regard to the application of manures, he was more inclined to top-dress grass lands than formerly. On this subject he would refer farmers to the report of the Secretary of the Board of Agriculture, as some very careful experiments have been made at the State farm in Westboro' during the past year.

Mr. **DODGE**, of Sutton, on being called upon, made some remarks in regard to the manner of keeping manures. He thought it best to have manures in an open barn-yard. He had made his own yard, pitching to the centre, and was using upland subsoil taken from the bottom of ditches for composting, throwing it into the centre of the yard, and adding straw, corn-stalks and litter with the manure; also adding salt in a liquid state, keeping the heap continually wet until September. Manure prepared in this way he found to be more valuable than any compost he had ever tried. He preferred subsoil, both to put under the barn and in the hog-pen. It has more power than the top soil to absorb ammonia from the air. Such, at least, is the operation of things on hilly lands.

Mr. **HOWARD**, of the *Cultivator*, attributed the process of Mr. Dodge's method to the peculiar nature of the soil, and differed from the conclusions which that gentleman drew therefrom. He had examined the soil on Mr. D.'s farm, and found that the subsoil was of a decidedly aluminous character, much more so than the top soil, which is loose and gravelly. The material of this subsoil (clay) possesses great powers of absorbing the manurial properties of urine, rendering it perfectly pure, while a loose, sandy soil, will produce hardly any effect. This fact is well known, and is the cause of the effect noticed by Mr. Dodge. But subsoil does not necessarily absorb ammonia any better than the top soil, unless it be clayey. Mr. Howard said Mexican guano, which was alluded to at the last meeting as probably preferable to the Peruvian, was no new thing. It was tried in England fifteen years ago, being introduced shortly after the Peruvian. How it was esteemed there, was shown in the fact that the demand for Peruvian guano is constantly increasing.

Dr. **CHARLES T. JACKSON** followed, in some extended remarks upon the scientific branch of the subject. Barn-yard manures are the most valuable, but at the same time they may be improved and their fertilizing power augmented. They act mechanically in the first place, and should be loose and open when applied to light soils. They then ferment, and the woody substances contained in them produce acids, some of which will kill plants, as rotten wood, it is known, produces a vinegar which will kill plants. In the next stage of decomposition, they produce carbonic acid gas. This stage is the most important, for it is now that the most powerful action of the manure occurs. The acids dissolve solid rocks, and extract the potash contained in them. When the animal matters ferment, they produce alkalies. Urine is converted into carbonate of ammonia. Urine will kill plants when pure, but when decomposed the urea changes into ammonia, which combines with the organic acids and forms the ammoniacal combinations with those acids, while carbonic acid gas is eliminated. Carbon forms the leaves of plants. Barn-yard manures are perfect in themselves, containing all the matters that were originally in the soil; but their supply is limited. Lime, under certain chemical conditions, will drive off the ammonia from manures, and if the heap is discovered to be losing its ammonia, it should be covered with a mixture of peat and plaster of Paris, in the proportion of

20 lbs. of plaster to a barrel of peat. If a subsoil contains copperas or sulphate of alum, it is necessary to decompose the salts, either by means of ashes or lime, to render them useful. Alumium has power to absorb ammonia. Water which has been through clay, retains all its saline qualities. Clay precipitates the vegetable matters contained in water, and absorbs vegetable and animal odors. Ashes is a perfect manure of saline matter, and the quantity of alkali depends upon the nature of the plant from whence it was derived.

The amount of phosphate is much larger in pine than in oak ashes, and phosphoric acid is much more abundant in pitch pine than in oak ashes. When ashes are used they take out the soluble portions of the soil, as they contain a large excess of alkalies, which dissolve and carry off the vegetable matters of the soil. When this excess of alkaline matter is removed, ashes can be used freely, say 120 to 150 bushels to the acre, especially on light, sandy soils. All fresh ashes destroy the soil. It is advisable to mix Mexican with Peruvian guano, in order to increase the proportion of phosphates which chiefly compose the former, while ammonia predominates in the latter. Too much ammonia is injurious, tending to too great developments of the leaves and stems of plants. Dr. Jackson re-iterated the views expressed by him at the previous meeting in relation to the value of fish as a manure, declaring that they were better than guano. He also stated that a manufactory had been established in Rhode Island for the purpose of producing artificial manure for fish. Dr. Jackson took occasion to recommend to farmers, Johnson's Lectures on Agricultural Chemistry and Geology. We have given but a fragmentary sketch of this gentleman's remarks, which, from their technical nature, could not be fully reported without going beyond the limits assigned to these reports.

Mr. **Halliday**, of Rhode Island, a gentleman engaged in the manufacture of manure from fish, related his experience in regard to manures, and made some statements relating to his artificial fertilizers.

Mr. **Buckminster**, of the *Ploughman*, alluded to the discrepancy of views which exist among agriculturists and scientific men in regard to the application of guano, and desired to be informed what were the exact proportions to be observed in composting guano.

No response was elicited, however, and at half-past nine o'clock the meeting adjourned.

The subject for the next meeting is the *Rotation of Crops.*

Sheep in Virginia.—Mr. John E. Sissions, of Dovecote, Ohio Co., Va., has sent us some samples of wool. They are choice, the No. 7 particularly. The No. 4 is a good sample of its kind. There is no market here for that kind of wool. There is now no mill in the Union making broadcloths; so that the demand for fine wool must be very limited, and should such a state of things continue long, we shall have to cease raising it, or send it abroad to be manufactured for us.—*Wool-Grower.*

UNITED STATES AGRICULTURAL SOCIETY.

The third annual session of this society commenced February 21, 1855, in the "East Room" of the Smithsonian Institution. Twenty-six States were represented by credited delegates from State and county societies, and there was also a large number of individual members of the society.

The Hon. M. P. Wilder, of Mass., President of the society, on taking the chair, delivered a pertinent address, in which he recapitulated the operations of the society during the past year, including the cattle show at Springfield, Ohio. The address was received with applause, and has been printed for distribution in pamphlet form.

On motion of Mr. King, of New York, a committee of one from each State represented was chosen by the President, to nominate a board of officers for the ensuing year.

A letter was read from Col. Selden, resigning his office as treasurer, and, accompanied by securities for the funds of the society deposited in the bank, was referred to Messrs. Wager, of New York, Calvert, of Maryland, and Worthington, of Ohio. They subsequently reported, complimenting Col. Selden for his integrity, and expressing confidence that the funds are secure.

Resolutions were offered by Messrs. Holcomb, of Delaware, and Kemmel, of Maryland, which were sustained by Messrs. Calvert, Peck, and Kennedy, of Maryland, King, of New York, and Jones of Delaware, and then laid on the table for future discussion.

Messrs. Wager, of New York, Kennedy, of Pennsylvania, Proctor, of Massachusetts, Steadman, of Ohio, and Jones, of Delaware, were appointed a committee to receive and report on amendments to the constitution.

Mr. Calvert, of Maryland, offered a resolution recommending political action on the part of agriculturists, and supported it by able remarks.

He was followed by Messrs. French, of New Hampshire, Dyer, of Connecticut, and Kennedy, of Pennsylvania, and the resolution was laid on the table for future discussion.

Mr. Jones, of Delaware, presented a memorial, showing the effect of legislation upon agriculture, and embracing a mass of historical facts.

After having been read, it was, on motion of Mr. King, of New York, placed on the files of the society.

Mr. Clenson, of Maryland, introduced a resolution recommending agricultural education.

An informal discussion of the potato rot, deep ploughing, and other matters of great agricultural interest, followed, in which a large number of gentlemen participated. Many facts of importance were elicited, as gentlemen from various sections related their "experience," and the debate was continued until 4 o'clock.

In the evening the society were favored by a lecture from their vice president from Virginia, the venerable George Washington Parke Custis. His eloquent narrative of the illustrious "Farmer of Mount Vernon" was listened to with marked attention by a large audience, and was warmly applauded.

After the lecture, a large number of ladies and gentlemen were introduced by the President to the orator.

After the lecture, the officers and committees were unexpectedly entertained at the National Hotel, by Colonel C. B. Calvert, the proprietor of "Riversdale." A sumptuous repast graced the festive board, and the festivities were prolonged until a late hour.

SECOND DAY.

This morning the society met at 10 o'clock, and, after the report of Mr. King, of New York, chairman of the nominating committee, elected the following

OFFICERS FOR 1855.

PRESIDENT.

Marshall P. Wilder, of Massachusetts.

VICE-PRESIDENTS.

John D. Lang, Maine,
H. F. French, N. H,
Fred. Holbrook, Vt.,
B. V. French, Mass.,
Jos. J. Cooke, Rhode Island,
John T. Andrew, Conn.,
Henry Wager, New York,
Isaac Cornell, New Jersey,
Isaac Newton, Pa.,
C. H. Holcomb, Delaware,
H. G. S. Key, Md.,
G. W. P. Custis, Va.,
Henry K. Burgwyn, N. C.,
James Hopkinson, S. C.,
D. A. Reese, Ga.,
A. P. Hatch, Ala.,
A. G. Brown, Miss.,
J. D. B. DeBow, La.,
Gen. Whitfield, Kansas,
J. T. Worthington, Ohio,
B. Gratz, Ky.,
M. P. Gentry, Tenn.,
Jos. Orr, Ind.,
J. A. Kinnicutt. Ill.,
Thos. Allen, Mo.,
T. B. Flournoy, Ark.,
J. C. Holmes, Mich.,
Jackson Morton, Fla.,
T. G. Rusk, Texas,
J. W. Grimes, Iowa,
B. C. Eastham, Wis.,
J. M. Horner, Cal.,
Jos. H. Bradley, D. C.,
S. M. Baird, New Mexico,
H. H. Sibley, Minn.,
Joseph Lane, Oregon,
J. L. Hayes, Utah,
Mr. Giddings, Nebraska.

EXECUTIVE COMMITTEE.

John A. King, New York.
C. B. Calvert, Md.
A. L. Elwyn, Penn.
J. Wentworth, Ill.
B. Perley Poor, Mass.
A. Watts, Ohio.
John Jones, Del.

SECRETARY.

William S. King, Boston, Mass.

TREASURER.

B. B. French, Washington, D. C.

On a report of the executive committee, Dr. Elwin. of Penn., Henry Wager, of New York, Dr. W. T. G. Morton, of Mass., Col. Anthony Kimmel, of Md., and Chas. L. Flint, of Mass., were appointed delegates to attend the coming Industrial Exhibition at Paris.

After the election, the discussion upon the resolution offered by Mr. C. P. Holcomb, of Delaware, on the "Reciprocity Treaty" as injurious to the agricultural interests of the Republic, took place. Messrs. Holcomb, Peck, King and Jones participated in the discussion.

This evening the Hon. G. P. Marsh lectured on "Notices of the Rural Economy of Continental Europe."

THIRD DAY.

After the election yesterday, the Society discussed a resolution offered the day previous by Mr. C. B. Holcombe, of Delaware, denouncing the "Reciprocity Treaty" as injurious to the agricultural interests of the public, Messrs. Holcombe, Peck, King, Waters, Elwyn, Kennedy, Steadman, Cowley, and other gentlemen participating. The resolution, as finally amended and passed, reads:

Resolved, That we object to the doctrine of free trade for agriculture and protection for other interests.

Col. Calvert, of Maryland, offered the following preamble and resolutions, which he supported in an able and earnest manner, deprecating all applications to Congress, and urging action on the part of agriculturists, as calculated to *command* success.

The resolutions, after having been discussed by Messrs. Kennedy, of Pennsylvania, Jones, of Delaware, and King of New York, were carried:

Whereas, The prosperity of a country is in proportion to the improvement of its agriculture, therefore,

Resolved, That agriculture should be the first interest considered in legislating for the general welfare, and that such legislation should be had as will foster and protect this interest, which is paramount to all others.

Resolved, That the time has arrived for the agculturists of the whole country to meet in convention, and determine for themselves what legislation is necessary for their protection.

Resolved, That such a convention, to be composed of delegates from each State of the Union, be earnestly recommended by this society, in order that an agricultural platform may be established, which will meet the views of, and be sustained by the whole body of agriculturists as a profession.

Mr. Wagner, of New York, submitted a report on the proposed amendments to the constitution, which was discussed by Messrs. Fay and Waters, of Massachusetts, Cook, of Rhode Island, King, of New York, Hamilton, of New Jersey, Calvert, of Maryland, and Worthington of Ohio.

The constitution was so amended as to have the payment of ten dollars constitute life membership, and to change the time for holding the annual meeting to the second Wednesday of January.

Various reports were read, among them one on the *Chess in Wheat*, from the Smithsonian Institute; on *Agricultural History*, by B. P. Poore; on *Mr. Glover's Collection*, by Mr. Peck; and on *Western Fruits*, by Dr. Warden.

Mr. Peck, of Maryland, reported that the committee appointed to urge upon Congress the purchase of Mr. Glover's collection of modelled fruits, had had an interview with the proper committee of Congress, and received assurances that the matter would receive their attention.

A communication from Professor Henry was read, detailing experiments on the culture of the "Oregon pea," made under the direction of the Smithsonian Institution, at the request of the society. The results at Savannah proved it worthless for that region.

A paper on "Alderney Cattle," by Dr. W. J. G. Morton, was read and referred. Also, a paper on the "Potato Oat," from New York.

Dr. Warden, of Cincinnati, exhibited over thirty different varieties of western apples, which he descanted upon with his wonted accuracy.

An invitation was received and accepted inviting the society to visit the Metropolitan Mechanics' Institute to-day at 11 o'clock. Invitations to visit the office of the Coast Survey and the agricultural room at the Patent Office were also accepted.

After some remarks by Mr. Custis, giving his experience in growing wheat in Virginia, the society adjourned until 7 o'clock, when the Hon. G. P. Marsh had been invited to address them on the *Rural Economy of Continental Europe*.

The lecture was listened to with great interest, embodying, as it did, a great amount of original information, and its publication will constitute a valuable addition to agricultural literature.

Dr. Warder followed, with an eloquent lecture on hedges, replete with practical information.

FRIDAY MORNING, MARCH 2.

The society met at 10 o'clock, and passed an hour in familiar conversation on agricultural subjects.

After a discussion on the appointment of Commissioners to the Industrial Exhibition at Paris, the matter was referred to the Executive Committee.

On motion of Mr. Poore, of Massachusetts, it was unanimously

Resolved, that the thanks of the United States Agricultural Society be presented to the Regents of the Smithsonian Institution, for the facilities afforded for holding this session. The utility of this Institution, in thus serving as a nucleus, around which all useful associations can rally, at the capital of our Republic, shows the wisdom of the course pursued by the present Regents.

Col. Kimmel, of Maryland, read a curious extract from the Maryland Gazette, of September 8, 1748, showing that "cattle shows" were established at Baltimore in that year.

On motion of Mr. Waters, of Massachusetts, it was unanimously

Resolved, that the thanks of this society be proffered to Hon. Geo. P. Marsh, for the very beautifully written and exceedingly interesting lecture he was so good as to present to us last evening, and that Professor Henry be requested to wait on him and request a copy for publication.

On motion of Col. Calvert, of Maryland, it was unanimously

Resolved, that the thanks of this society be presented to Dr. Warder, for his interesting lecture on the cultivation of hedges, and that he be requested to present a copy of the same for publication in the transactions of the society.

At eleven o'clock, in accordance with their acceptance of the invitation, the society adjourned to visit the exhibition of the "Metropolitian Mechanic's Institute."

After visiting the Exhibition yesterday, the society returned to the "East Room," and, on motion of Mr. King, of New York, it was

Resolved, that the thanks of the society be presented to the officers of the Metropolitan Mechanics' Institute, for their polite invitation to attend their exhibition, which they have visited and examined with great pleasure.

After some debate, in which a strong desire for concerted action on the part of American Agriculturists was manifested, it was, on motion of Col. Calvert, of Maryland,

Resolved, That the first Friday after the next annual meeting of this society, be fixed for the assembling of the Agricultural Convention, and that the press be requested to urge the importance of the subject.

Resolutions were passed complimenting the agricultural press, and urging its conductors to consider political economy, and urge united action on such matters connected with it as their judgment may suggest.

On motion of Mr. Taylor, it was

Resolved, That the thanks of the National Agricultural Society be tendered to the Hon. Mr. Morton, of the United States Senate, for his able report upon the subject of an Agricultural Department.

Resolutions were passed complimentary to President Wilder; to the Regents of the Smithsonian Institution; to Lieut. Maury, (for an invitation to visit the Observatory;) to Mr. King, the Secretary of the society; and to Mr. Poore, of the executive committee.

Adjourning, after three days session, in which agriculturalists from twenty-six States participated with great harmony of feeling, the members of the society felt encouraged by this renewed and increased manifestation of the *great interest* of the Republic to assert its position.

In the evening many of the officers and members called upon Mr. Clayton, to thank him for his speech of the previous evening.

For the New England Farmer.

PRUNING TREES, AND SUN-SCALD.

MR. BROWN:—In your paper of Feb. 24th, I notice a communication over the signature of S. A. Shurtleff, in which he concludes as follows, viz.:

"All trees should be so trimmed and trained as to allow *teams* to pass under them, and also to prevent cattle from browsing the limbs."

I am aware, sir, this was the practice in the early settlement of New England, and the practice was handed down from father to son to the beginning of the present century, and by *some* to a still later period.

But I am *not* aware that this sentiment now prevails, and is acted on, by our best informed cultivators of fruits; but on the contrary I have been led to suppose that the practice is now considered injudicious, and is abandoned by our best pomologists in the United States.

It is well known that the rays of the sun in this country are far more powerful and scorching than in Europe, more especially in England. Here the trunks of our fruit trees need protection by the shade of the branches and their foliage, otherwise they will be seriously injured by the *sun-scald*. The bad effects may readily be seen in all fruit trees, but more particularly in the pear and cherry, when they have been so severely, and I believe I may add, cruelly pruned, that they resemble a long-handled corn broom stuck into the ground. The trunks of trees so treated, are sure to suffer severely, unless they are shaded by wreaths of hay, boards, or something suitable to protect them from the intense heat of the sun.

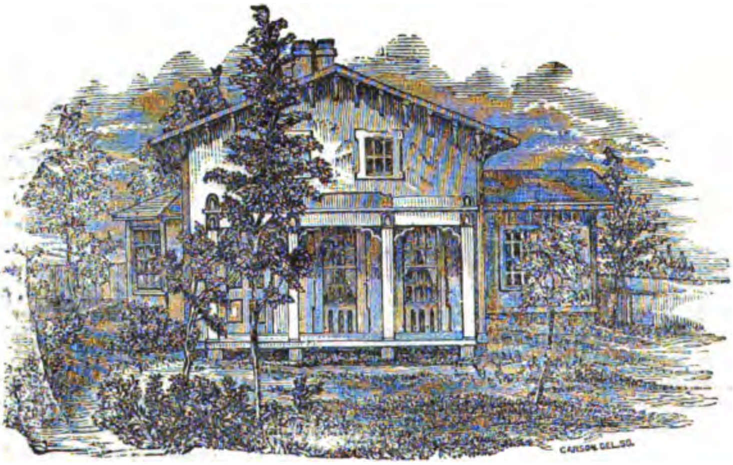
There are other reasons which may be urged against severe pruning. Trees will not, and they cannot be so productive, when the branches are severed from their trunks for 8 or 10 feet from the ground. Is not the fruit of the lower branches of the tree of a very choice variety, of more value than any vegetable crop that can be raised under its branches? For one, I should think so; I therefore disapprove of the *too free* use of the axe, the hand-saw and the knife among highly valuable fruit trees.

I believe also that a great and frequently a fatal injury is annually done to young orchards by inexperienced persons by severely mangling and severing the roots of valuable fruit trees by deep plowing close to their trunks.

For many years I have carefully considered the subject, and it is my conviction that "*teams*" should *not* be allowed to pass under the branches, or even very near valuable fruit trees. I am also convinced that cattle should never be turned into valuable fruit gardens or young orchards; but should be fed where they can do no injury, for they are always mischievous among young trees. I would remark in conclusion that I believe it advisable to suffer all fruit trees to branch near the ground for profit and for ornament.

Respectfully yours, Henry Little.
Bangor, March 1, 1855.

Remarks.—We believe both of our correspondents to be correct, in part. Fruit trees are sadly injured sometimes by severe and otherwise injudicious pruning; on the other hand if the limbs come from the stem at about *five* feet from the ground, teams can come near enough in cultivation, and the loss will not be great in such trees by sun-scald. But as in everything else, to take care of trees properly, a man must *know how to do it*, first, Guess work, and a blind fancy, are alike dangerous. Col. Little is one of our best informed horticulturists, and his opinions are worthy of consideration.



A SUBURBAN COTTAGE.

Mr. Downing, the author of "Country Houses," and other works on Landscape and Horticulture, is no more, but the precepts and the examples he has left us are alive, and his influence is as verdant and as powerful as ever. We never see a tastily planned country house or a suburban cottage, surrounded with appropriate lawns, trees and shrubbery, but we involuntarily think of the benefits he has conferred on the country by the diffusion of a knowledge of the fitting, beautiful and useful, as connected with our homes and the scenery around them.

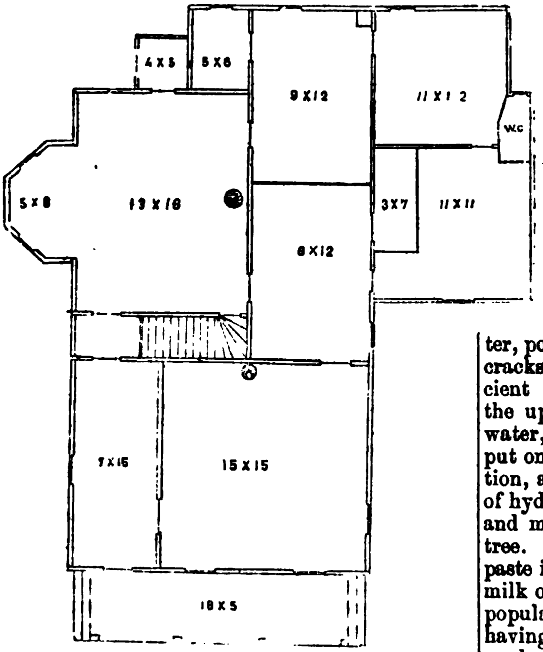
To promote this end we have given, from time to time, designs of houses suitable for different classes of our readers, and this week take great pleasure in presenting the accompanying elevation and ground plans of a bracketed suburban cottage, with veranda. The description will be found in the letter of Mr. Bradley, as communicated to the *Rural New-Yorker*, published at Rochester, N. Y.:

"I send you a daguerreotype view; and plans of a cottage recently erected by my neighbor and friend, Prof. S. W. Clark, of the East Bloomfield Academy, N. Y.

Size.—The upright part, two stories high, 34 by 22. North wing, one story, 14 by 16. Leanto, west end, 6 by 25. Bay window, 8 by 5. Front piazza, 5 by 18.

Accommodation.—*First Floor.*—Front hall, 7 by 15. Parlor, 15 feet square. Dining-room, 13 by 16. Library, 9 by 12. Bed-room, 11 feet square. Cook-room, 9 by 12. Wash-room, 11 by 12. Closet, 3 by 7. Pantry, 5 by 6. Back entry, 4 by 5. W, C, Water Closet.

Second Floor.—A, Entry, 10 feet square. B,



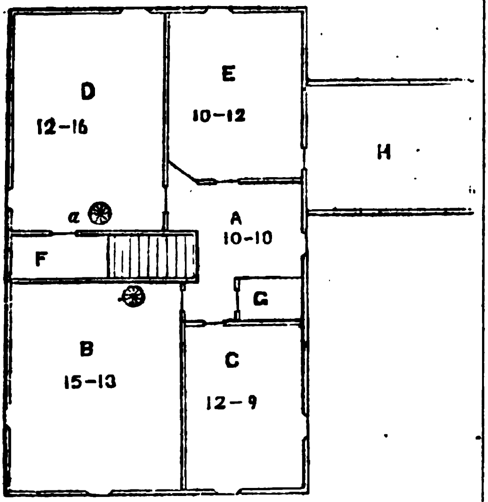
FIRST FLOOR.

Parlor, 15 by 13. C, Bed-room, 12 by 9. D, Children's bed-room, 12 by 16. E, Bed-room, 10 by 12. F, and G, Closets. H, Lumber garret.

Cellar.—Cement bottom, 22 by 24 feet.

Cistern.—Capacity, 190 barrels, with filtering apparatus.

The plan of the house, in point of convenience and taste, will place it in rank among our model cottages. *Cost.*—Exclusive of land, $1,400,—all the material and workmanship being of the best quality.



SECOND FLOOR.

☞ At Patterson's Falls, in Sparta, N. Y., a boy four years old fell 100 feet, striking in the deep snow, unhurt.

For the New England Farmer.

WHITEWASH.

There has been of late a great deal of prejudice against the use of whitewash for fruit trees. Nor is it to be wondered at, if we look at the manner in which it is usually done. Lime paste and whitewash are two different things; the former is lime slaked and stirred up with cold water; this forms a thick paste, unfit as a whitewash for trees or for other purposes, but is most commonly used for fruit trees. Whitewash is lime *dissolved* in water, which should be made by slaking lumps of quick-lime in boiling hot water, pouring on but little at first, till it swells and cracks, and then more may be added, till sufficient for the purpose. If this be set aside, the upper portion will be a transparent lime-water, and this is as thick as ever ought to be put on to trees. This will deposite, on evaporation, all over the tree a thin and uniform coating of hydrate of lime, which will kill the plant-lice and mosses effectually, and do no injury to the tree. For whitewashing rooms, a portion of the paste is stirred in with the lime-water, forming a milk of lime. I am aware that it is rather unpopular, just now, to wash trees at all, but after having seen trees covered with lice and moss, rendered smooth and healthy by *lime-water*, I have no hesitancy respecting it, but earnestly advocate its use. The idea that a tree is healthier with a covering of parasites is too absurd to be tolerated by intelligent and cleanly men. So, too, is the opposite extreme equally absurd, of stripping all the covering from a tree, especially when exposed to the powerful rays of the sun, as is the case on Boston Common. Look at an oak or maple growing in high, open pasture ground, and you will see that nature generally does her work *about right*. D. T. T.

REMARKS.—Like potash water on fruit trees, lime may be used without positive injury—perhaps usefully—in the hands of careful and considerate persons; but we greatly prefer the use of good soap suds.

For the New England Farmer.

SPRING WHEAT.

MR. EDITOR:—I beg to say in the start, I am not an advocate for spring wheat; yet circumstances will justify me in advocating its cultivation the present spring. Flour at $13 to $14 a barrel, (making the price of wheat nearly $3,50 per bushel) is a hard price for the farmer, while he can afford to raise it at the price of rye, say one dollar a bushel.

The main objections to spring wheat are—that it does not mature so early in the season as winter wheat, is more liable to *rust*, does not yield so much, and makes a heavy, dark bread. But luxury in this matter at the present time is out of the question; it is bread, at a reasonable price, that the farmer requires.*

For the spring crop, select the warmest patch of ground on the farm, to secure early maturity; *sow early*. The failures may generally be attributed to sowing too late, and on a backward, cold soil; a rich, tenacious soil is better for a winter crop. Sow a bushel and a half to the acre; soak it over night in a pickle of four quarts of salt to eight buckets of water; this might destroy any insect that should be deposited in the grain, or perhaps in the berry itself, as is often the case in old grains or peas. Too much salt would injure the germ. Roll it in ashes on the floor; sow and harrow in, and the grain will come up in three days; should it be a dry time, use the roller; I use it on all my grain crops at all times.

Yours respectfully,

New York, *March* 5, 1855. H. Poor.

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*War prices for flour may continue for quite a length of time, and much longer than did the "famine" prices a few years since. Europe looks to the United States as their unfailing granary.

THE WHITE CARROT.

Col. De Couteur, in some very able remarks upon the value and productiveness of this vegetable, says, that the acreable product is about thirty-eight tons. When we take into the estimate the superior excellence and value of the Belgian or White carrot for stock feeding, this will appear a very good crop, although far less than is often afforded by turnips or even beets. The carrot, in all its varieties, is a crop requiring a good soil and thorough cultivation, but probably one of the best crops the farmer can produce. Lord Ducie estimates the expense of cultivating the white carrot "at little more than half the cost of growing any other root crop known to him. The product also of the "whites" exceeds that of the "reds" from eight to nine tons per statute acre on the same soil." We have cultivated the white carrot only in small quantities, and cannot say with any degree of confidence what their comparative merits are. But the opinions of others may, perhaps, lead us to a higher estimate of some crops not now usually cultivated among us.

Having caught something of the popular prejudices against the cultivation of roots, for many years we entertained a strong belief that they were of little value as feed for stock; but *experience*—that excellent teacher—together with a careful investigation of the experiments and opinions of many of the best English stock growers—has dissipated that belief, and we now deem it a duty earnestly to recommend the cultivation of root crops to all who have stock of any kind to feed. In no way can the farmer produce so much valuable food at so small an outlay of time and cash; and if he will give the subject a little investigation, and refer to an article in the June number for 1854, basing his estimate of a crop of carrots at not less than 800 bushels to the acre, we think he will come to a conclusion favorable to the cultivation of the root crops.

There is also another very important argument to be adduced in its favor, viz.: the improvement of the soil, which is as certain to result from the systematic observance of the principles and rules of this culture, as any effect on which we can rationally rely. Those who have but little land, and who are desirous of rendering that little productive, should cultivate root crops in preference to all others.

For the New England Farmer.

PROPAGATING APPLE TREES.

Friend Brown:—I suppose the design in publishing agricultural journals, is to diffuse a correct knowledge of scientific farming. We often find articles on the culture of apple trees so conflicting, that those who are seeking for knowledge are left in ignorance as to the best and most economical mode of proceeding. Therefore, all who write should experimentally understand what they are communicating to others. It is common for good farmers to try experiments in the various branches of their occupation, and, so far as they have been successful, I think they may be justified in communicating their mode of practice to others. My principal business and income has been in fruit growing, mostly apples. My method of treatment, both in pruning and grafting, has, for the past twelve years, proved so conducive to the health, beauty, and productiveness of my trees, (*a*.) that I have felt justified in communicating, through your valuable journal, my method of practice, hoping, at the same time, it might prove beneficial to others.

My mind has been more particularly interested in the management of apple trees, since reading an article in the *Farmer*, signed "C. Goodrich, Burlington, Vt." As regards his theory in the selection of trees for transplanting, and many other topics of his discussing, I do most heartily concur with him. But as to pruning, there is an essential difference between us as to the time and mode of treatment. If his theory will apply to all of the New England States, my labor in pruning, for the past twelve years, ought to have been very disastrous, and to have destroyed three hundred trees, which, I am happy to state, are now living witnesses, showing to all beholders the cruel treatment inflicted upon them by my wicked process! Mr. G. says, "the time for pruning is in June, or early in July. February, March and April, are the worst three months in the year for pruning any trees. Sap soon after flows from the fresh wounds made by cutting large limbs, poisoning and killing the bark, and if general pruning is then done, it is very destructive." He further says, "trees properly planted, require attention during the first few years. After this, the pruning required is very trifling in most trees—none during the ordinary life of man. Apples protected by leaves are much larger and of better quality than those grown exposed to the sun in July and August. The most common error in pruning is in taking out too much of the central portion of the tree, leaving naked limbs, producing fruit only at the ends, beyond the reach of any thing larger than a raccoon." This is a very great error indeed, and I have no doubt that excessive pruning has frequently come under his observation. I also believe that a neglect of pruning at the time specified by Mr. G., during the ordinary life of man, would be attended with consequences equally as great. If friend Goodrich could see some of our Roxbury Russets, R. I. Greenings, and many other varieties, that had not been pruned for ten or twenty years, I think he would come to the conclusion that nothing larger than a raccoon could get among the branches to harvest the apples.

I commenced pruning the orchard I now own twelve years ago last February, thinking it would be economy in me by so doing, as the various other branches of farming would soon require my whole attention. (*b.*) I have pruned every year, generally selecting the warmest days of February and March, taking out all limbs that were liable to come in contact and injure others by galling. I have taken off limbs five or six inches in diameter, rubbing the wound with cold beef tallow until thinly coated, and thus far they are vigorous and healthy. The product for the first, third and tenth years, were as follows:—1842, 45 barrels of winter apples, (early not included;) 1843, 86 barrels; 1844, 183 barrels; and in 1852, 400 barrels. So much from February and March pruning. (*c.*) I do not apprehend, from what experience and observation I have had, that early spring pruning of healthy trees would, if judiciously done, ever be attended with serious consequences, in any extreme of climate to which New England is subject. But I am aware that, in pruning diseased trees in any season, there frequently flows a poisonous sap, blackening and killing the bark below the wound.

As for apples grown in the shade, protected by leaves, being larger, fairer and of a better quality than those grown exposed to the fair rays of the sun, is a question easily to be decided by presenting them for sale in our markets. (*d.*) A few years since, I selected two barrels, (most of them grew where they had a pretty fair peep at the sun,) and carried them to Boston to be sold on commission. I received twenty dollars for the apples, after deducting the commission for selling. Now if Mr. G. will select the same quantity of apples grown in the shade, protected by leaves, and receive the same amount of money from any of our markets, then we may conclude that his theory and mine, in this respect, hold equally good, although we somewhat disagree in the mode of treatment which produces the fruit.

Somerville, 1855. N. P. MORRISON.

REMARKS.—(*a.*) Mr. Morrison commenced his operations upon trees set by another person, that were generally healthy, but selected without a particle of taste, being crooked and the limbs of many of them coming out within two or three feet of the ground. He cleaned and pruned them, and thoroughly manured and tilled the soil. Where limbs were cut off, the wounds were immediately covered with tallow, and the sun, wind and rain kept from their fresh surfaces. By this careful mode of treatment, and giving great activity to the growth, he has, undoubtedly, gone so far without the usual bad results of March and April pruning. If so, however, it is the exception to the general rule.

(*b.*) Mr. M. says he commenced pruning in February as a matter of *economy*. Certainly, and that is the usual reason why pruning is done in March—because there is more leisure at that season. We have no doubt that is the reason all over the State.

(*c.*) After giving the products of his trees for several years, he adds, "so much for February and March pruning," as though the increase of the crop were the consequence of *the pruning*. That increase, however, should be imputed to the manure, cultivation and care, and not, in any particular degree, to the cutting off of limbs.

(*d.*) Mr. Goodrich, in his article of April of last year, says, "apples protected by leaves are much *better*, *larger* and *fairer*, (being grown as Nature designed,) than when grown on long branches, exposed to the sun in July and August." Will any man acquainted with vegetable physiology doubt this? He does not deny the necessity of sun and air, but is an advocate for a good many leaves. We once knew an intelligent lady, and one who understood much about horticulture, strip her grape vines of a portion of their leaves, in order *to let in the sun and ripen* the fruit; but to her surprise, where the leaves remained as Nature had disposed them, the grapes were the earliest, and every way the best. This led her to investigate the matter, when she was delighted to learn that the leaves were not only the *protectors*, but the *caterers* of the fruit, constantly elaborating and supplying it with the pabulum it required to bring it to perfection.

Mr. Morrison is a careful and successful orchardist, and it is because he is so, that we are unwilling our readers should believe that we endorse his theory of March and April pruning. If he had pruned a portion of his trees in June or October, there would be opportunity of comparison on his own grounds—but there is none now.

The highest authorities we have are opposed to Mr. Morrison's theory. Prof. LINDSLEY, the most eminent horticulturist in our knowledge, says—"take care never to wound trees at the time when their sap first begins to flow; after a time, the demand upon the system *by the leaves* becomes so great that there is no surplus, and therefore bleeding does not take place when a wound in inflicted."

DOWNING says—"There are advantages and disadvantages attending all seasons of pruning, but our own experience has led us to believe that practically, *a fortnight before midsummer is by far the best season, on the whole, for pruning in the northern and middle States.*"

PONTEY and LOUDON both say—"There is, however, one season for pruning unquestionably preferable to all others, as far as the welfare of the tree is concerned. It is well known to physiologists and observant gardeners, that when the sap is returning, wounds heal with the greatest rapidity. This, in hardy trees, is uniformly a week or fortnight after midsummer."

SANG suspends pruning from the end of February to the middle of July, but carries it on during every other month of the year; pruning the cherry, or any other tree very apt to gum, only in July and August.

We have again examined Mr. GOODRICH's article, and think it, as we said at the time, worthy of more than the usual attention.

For the New England Farmer.

AN EXPERIMENT WITH GUANO.

MR. EDITOR:—A year ago last November, an agent of yours asked me to subscribe for the *Farmer*. I told him I was taking so many papers that I could hardly afford another, though I was satisfied from representation, that the *Farmer* was among the best, and consented to try it. Accordingly it came, and in one month it became so familiar and interesting an inmate of my family, that I could not resist its company; therefore paid for one volume, and now enclose two dollars for a second, as it grows more and more useful and interesting.

But I must relate withal, a *little* sad experience in following its advice, which if it do not elicit something from other pens by which *I* can profit, this relation may benefit *somebody*. I have long thought that farmers were too penurious in making outlays upon their farms—looking too much upon the amount expended, rather than to the interest to be derived from the outlay, and the extraordinary security of such investment. For instance, most farmers have more or less swamp covered with deep muck worse than useless in its natural state, which by expending one hundred dollars per acre in clearing it up, root and branch, and ditching it, may be made more valuable than any other land whatever; sure to return to the owner from 9 to 12 per cent. on the outlay, besides paying all expenses.

Last spring, with this view, and hearing so much about guano, I thought I would try it. Accordingly I sent to Boston and got 150 lbs., which cost me here $5,00—and which when pounded fine, measured about three bushels. This I mixed thoroughly with nine bushels of good rotten swamp muck. I had "broken up," as we say, about an acre of grass ground, good land for corn, after putting on 20 loads of long manure; harrowed it smooth, made a nice hill, and planted it with corn as far as the guano went, by putting one pint of the mixture (one gill of guano) to the hill, placing the corn directly upon the mixture and covering it with fine soil. This seemed to dry up and look as though it were caked and never sprouted. After four or five days, I planted it over by putting the seed on the top of the old hill, and with the same result. The rest of the piece I planted with muck from the hog-yard in the hill and had a good crop. The seed was all alike, and prepared in copperas water, according to directions found in the *Farmer*—and it all came up well except that with the guano. I am aware, sir, that the foregoing will take up too much room in your useful columns, for the matter it contains, and hope that you, being a practical farmer, will give us a condensed column on the use of guano, so that we may not pay out as for quack medicine, all our substance for nothing.

Respectfully yours, &c., N. COLBY.

Derby, Me., Feb. 19, 1855.

EXTRACTS AND REPLIES.

COCK'S-FOOT OR ORCHARD GRASS.

MR. EDITOR:—Can you give me any information about American cock's-foot or orchard-grass? I see it is highly spoken of in Pennsylvania. Is it cultivated in your State, and how far North would it succeed? Is it better adapted than timothy-grass to sow with clover on dry, arid soils, and is the seed kept for sale in your vicinity? A SUBSCRIBER.

REMARKS.—We have not cultivated this grass, but find by the books that it thrives well in moist, shady places, and especially in orchards. It grows freely in most situations, is *hardy* and productive, but rough, harsh and coarse, and much improved by cultivation in open grounds. As a single plant to sow with clover for hay, it is altogether unsuitable. On good lands, it shoots up strong, coarse stalks, too tall and few in number, and unfit for fodder; but on inferior soils that are used for pasturage for several years in high situations, it forms one of the most valuable grasses, shoots early, and affords from its tufted growth, an early bite for cattle or sheep. The seed is for sale at Ruggles, Nourse, Mason & Co.'s, Boston, at $2,50 per bushel.

SULPHURIC ACID.

MR. EDITOR:—In the monthly *Farmer* for October, 1852, is an article giving the process of dissolving bones in diluted sulphuric acid. As I wish to try this as a manure, I would like a little information concerning the price of the acid, and place of obtaining it.

The price given in the article referred to, is one dollar for forty pounds; but our merchants here, ask three cents for an ounce, which would be forty-eight cents per pound. At that rate it would make rather costly manure. L. B. P.

Weston, Vt., Feb. 26, 1855.

REMARKS.—The price of sulphuric acid as given in the October article was correct, as we went directly to the dealers for it. It may be a little higher or lower now, and can be purchased in quantities of any of the large druggists. It comes in large demijohns of about 150 pounds each.

MOWING LAWNS.

MR. EDITOR:—In the April number of the *Horticulturist* for 1852, a communication from a "Montreal Subscriber" is published in reference to "Mowing Machines for Lawns," which he represents as doing the work in a superior manner, and very expeditiously. He gives what he calls a cut and description of an English mowing machine for lawns, furnished by Messrs. Shanks & Son, Arbroath, N. B., but little idea of its construction, operation or utility can be gathered from either, further than—that it is made to cut different breadths from 20 to 42 inches, performing three different operations at the same time, viz.: rolling, mowing and collecting the grass, and works with perfect ease, producing a beautiful smooth surface, and attended with a great saving in abridging labor. We will all agree, I presume, that if there was an article for mowing lawns which could be obtained at a moderate price, that would do its work well, and expeditiously, it would not only be of great utility to many who are endeavoring to keep extensive grounds in order with the scythe; but would probably induce hundreds of our friends to have their grounds in good keeping who are deterred by the time, expense and trouble now required for that purpose. And now, Mr. Editor, will you or your correspondents be so good as to put us on the right track for obtaining the most desirable article of the kind for the above purpose now in use, and oblige many as well as

A Hartford Subscriber.

Hartford, Conn., 1855.

Remarks.—Mr. Nourse, the proprietor of this paper, when in England, sent home an English lawn grass-cutter, or mowing machine, which we had the pleasure of examining, and thought it among the most highly-finished and beautiful machines of that character that we have ever seen. It not only cut the grass, but collected it as fast as it went along. We believe it was the intention of the house of Ruggles and Company to manufacture them, but the demand, as yet, does not seem to justify it. It is thought that a one-horse mowing machine, taking a swarth about three feet wide, would be admirably adapted to lawn mowing, as well as to the common fields. We hope something will be found to mow lawns rapidly, because there is no one thing more ornamental *to the farm* than a handsome, well-kept lawn, and if it could be cut rapidly and conveniently, no other part of the farm would be more *profitable*.

USE OF PLASTER.

I wish to inquire through your paper the best time to use plaster? Whether to put it in to the hill when planting potatoes, or at hoeing time? Also, when to use it on grain at sowing time as when the grain is up, and what ground it will do best on. Stubble ground or grass land, plow this spring, or how will it do mixed with ashes? My farm is somewhat of a gravelly soil.

Salmon Gerry.

Cabot, Vt., March 3, 1855.

Remarks—After plowing a field, sow the plaster broadcast and harrow under, two or three hundred pounds to the acre. Use your ashes at some other time. Plaster operates beneficially on light, dry, and sandy or open soils, as they soonest admit the rain water which dissolves and conveys it to the roots of the plants. Plaster may be applied to pasture or mowing lands in March or early in April, often with fine effect. When applied to these lands it ought to be sowed when there is a heavy dew, or when it is cloudy weather.

PLUM TREES.

Mr. Editor:—Please tell "J. T. W." of Marlboro', N. H., to graft his plum tree, if it has not been done. If it has been grafted, tell him to prune the roots, if the tree is thrifty, and, my word for it, he will have a good crop of plums, if the curculio don't find its location. J. B. C.

North Reading, 1855.

MUSCLE-BED FOR MANURES.

Friend Brown:—Will you please inform me through your excellent paper, what month of the year you consider as best for applying muscle-bed manure; also, in what quantity to the acre. My land is rich, though a little dry in summer, as it lies on a substratum of sand at the depth of 2 feet.

Boston, Feb. 15, 1855. A Subscriber.

Remarks.—We have never used "muscle-bed" as a manure, and cannot speak of it with confidence. We should think, however, that it must be a valuable fertilizer; it contains common salt, which is an important ingredient in the best of manures, and most with putrid animal substances. Some of our coast correspondents will be able to answer the interrogatories.

MAKING DRAINS.

Mr. Editor:—If I lay on the bottom of the ditch a board, and slate on the board, (such as is used for houses) lengthwise, and then common bricks on each side of the slate, edgewise, half-an-inch apart, and slate on the top to cover the same, and then fill the drain, will it not answer equally as well as drain brick?

Having a lame cow last fall while going in a close pasture, I thought she might have strained herself in some way, but did not take much notice of it. She went as though sore in her fore feet, and finally grew worse, until the first of January, when I examined her, thinking she might be sore between the dew-claws, but could find no symptoms of disease there; I thought it must be the bone disease, which I had read of in some previous number of the *Farmer*. I got a bone as big as a man's fist, and burnt it to a white powder, and gave her in four of her regular doses of meal at night, which soon effected a perfect cure.

Newburyport, Feb. 17, 1855. Q. Z.

Remarks.—We suppose the inquirer means to ask whether the plan he describes will answer as well for draining as to use what are called draining tile? Where stones are plenty, no bricks or slates are required. A good stone drain, with a gullet of three to six inches in diameter, covered with stone first, and then with straw, grass or sods reversed, will make a drain which will stand for a great many years.

SWALLOWS—PLUM TREES.

Mr. Editor :—The old adage says, "Better late than never ;" acting on that principle, I give you the following items which I found in my note-book the other day. "The first barn-swallow made its appearance here April 27th, for 1854. Same day, in travelling to a neighboring town, some fifteen miles north, I passed a stagnant pond with a large and apparently hollow tree standing near its edge ; and hundreds of swallows were upon its branches, flying about, and performing all sorts of gyrations, apparently for no other object, than to try their wings ; acting, all the while, as though they had just waked up from a long sleep. We could not stop to make observations. The first detachment of swallows at our barns, met for a drill, July 19th, to the number of forty or fifty ; in two days they were gone. Many others lingered about some three weeks, ere they departed ; but they seemed to look lonely and sad." I believe, that with the exception of your remarks, early in the season, no one has given us observations respecting the swallow, during the last year. I hope the poor swallow is not going to be forgotten. Some philosopher has said, "that a swallow will destroy an average of nine hundred insects a day—and that some of these insects will bring into existence seven generations in one season." Verily, then, the swallows should be looked after and cared for. Why not?

Can you tell me what to do for a plum tree, which is very thrifty, blossoms every year very full,—but never ripens any, and with the exception of one or two years, has never formed any plums. We have tried various things, but without success.

Marlboro', N. H., Feb., 1855. J. T. W.

Remarks.—Your facts of the swallows are interesting. Head in your plum tree—that is, cut off a foot or two of the ends of the limbs immediately ; dig about the tree ; manure it, and wash with soap-suds.

WHAT WILL CURE HOLDFAST.

Mr. Editor :—Can you or any of your correspondents tell me through your columns what will cure a holdfast in its first stages? The holdfast is on the upper jaw of the ox. B. W. Gay.

New London, N. H., 1855.

Daniel Childs, Cotuit Port, will learn particulars about machine for cutting brush, by addressing Col. Charles. E. Stanley, Methuen, Mass.

For the New England Farmer.

ON THE USE OF GUANO.

Mr. Editor :—I have read with much interest your valuable paper for the last eighteen months ; and especially any articles on the use of guano. I have just been reading one signed "Amplificator." I think with him, that if the farmers were to save and make more manure on their farms, (which manure we have, if we would but look after it,) we should in five years be much better off, than to buy all the patent fertilizers of the day. In my opinion, there is not so much real goodness in guano as some suppose. But there is some powerful extractor in it, which awakens the soil to new powers, and leaves it, after these powers are exerted, poorer than before. I say these are my opinions. If I am wrong, I wish to be set right.

I know that guano is more beneficial in raising a crop on some soils, than on others ; but this I ascribe to the superfluity of a certain quality in the soil which is brought into immediate action on the crop by the help of the guano, which quality I think had better be left in the soil.

In respect to the kind of soils, I think that a damp soil is the best for guano. It seems to do no perceivable good on our farm, which is a gravel loam. I applied it last year on corn ; and from its being planted on buckwheat ground, a dry season, and applying guano, it was the poorest crop we ever raised.

It may be that guano can be used with advantage ; I mean lasting advantage to the soil ; but I have yet to learn how to apply it. At all events, give me barn-yard, or composted manure, and I will get along with the trouble of hauling.

But I have already written more than I expected, seeing it is the first time I ever wrote for the public eye. I can offer no excuse for occupying a place in your columns than that I have never, but once, seen anything from Middlesex county, Conn., and I hope this will incite them to write something better. H. W. C.

Durham, Conn., 1855.

Remarks.—Very well ; let us hear from you again.

CURRANTS.

The fruit of the currant is universally admired. Its pleasant sub-acid flavor renders it peculiarly excellent in tarts and pies, and makes, with a small addition of sugar, a very desirable substitute for apple sauce. From the ripe fruit, an excellent and cheap wine may be manufactured, either with or without alcoholic properties. No fruit is susceptible of more easy cultivation. It will readily adapt itself, in some degree, to every description of soil, and may, without much trouble, be made to produce, even prodigiously, on those which are constitutionally moist and wet. In cultivating it, however, it is better to adapt the soil to the plant, rather than endeavor, by forced efforts, to adapt the plant to the soil. Acclimatory changes are generally slow, and have a decided tendency to destroy the strength and hardihood, as well as the prolific power of all plants. Yet circumstances, as well as the capriciousness of taste, often demand this.

In setting currants, the soil, in the first place, should be well prepared by plowing or digging, and reduced to a very fine tilth, and should then be stimulated by warming and invigorating manure. A porous, or not too retentive sub-soil, is desirable, with a small per centage of clayey matter in the surface soil. When the latter is deficient, it may be well to supply it. Into soil thus prepared, the cuttings from old plants—the fresh, vigorous wood of the previous year's growth, may be set with an almost certain assurance of success. These should be cut off near the surface, and inserted in the lines or beds to the depth of six or seven inches, and the soil well compressed about them; the surface should then be covered with old, well-rotted chip-manure, hay, leaves or straw, so as to keep the ground at all times moist. It will be well to scatter a little lime or ashes on the surface before mulching.

The plants must be kept well weeded, and be watered the first year, if the season be dry. By removing all the leaf buds except some few—say four or five of the topmost ones, and checking the tendency to lateral growth, very prettily formed and symmetrical trees may be obtained; but this operation must be annually repeated till the plants or bushes have assumed the requisite height and shape, which will generally be in about three years from the time of setting. But more fruit will probably be obtained from the clump of bushes. Gooseberries may be cultivated in the tree form, and perhaps with advantage. Under the old way, the gooseberry is often injured, or destroyed by mildew. The tree method is said to obviate this evil, and secure elegant and healthy bushes and fruit. The subject is worthy of attention.

NINTH LEGISLATIVE AGRICULTURAL MEETING.

Reported for the New England Farmer,

BY WILLIAM W. HILL.

The *ninth* meeting of the course was held in the Representatives' Hall, at the State House, on Tuesday evening, 13th inst.. The subject for consideration was—*The Rotation of Crops.*

R. MORRIS COPELAND, of Lexington, presided, and opened the discussion in an interesting manner. The subject of a rotation of crops, he said, must appropriately follow that of manures, which had been discussed at the two previous meetings, for the principle of rotation is the principle of manures. It is often asked, why should we wish for a rotation of crops? And it has been affirmed over and over again that none was needed, because in England wheat had been raised for a long series of years upon the same land. But the reason of this is found in the fact that the English farmers have cultivated their land highly, and he doubted whether Western farmers would be willing to spade their land instead of plowing it, in order to obtain a large crop. Why one crop succeeds better after another has not been determined. It has been explained that one crop first takes all the constituent qualities from the land which it needs, and yet leaves something untouched which is required for the succeeding crop; but this is incorrect, as turnips, which follow corn (which require a large supply of the phosphate,) with excellent success, absorb more phosphoric acid than corn. The speaker also showed that the "excrementory" theory, also, was fallacious. In considering the rotation of crops, the farmer ought first to ascertain what kind of crops he wants to grow. If he wishes to raise cattle, he can only increase his herds either by rotation of crops or by extra manuring. Now four pounds of turnips are equal to one pound of hay, and it has been said that ten pounds of hay will make a pound of beef. Therefore, as we can get twenty tons of turnips where we can two of hay, the profit in raising turnips is very apparent. If a market gardener in the neighborhood of Boston wishes to grow celery on the same land for twenty years in succession, he does it, and with wonderful success. Therefore, before deciding upon a rotation of crops, the farmer should decide whether his market demands it, or whether it is better to buy manure. In a section where the chief aim is stock growing, and manure is not abundant, a good system is to take a piece of pasture land, put on a fair amount of manure, plant with corn, and seventy-five bushels may be obtained; follow it with turnips, applying a small amount of barn-yard manure, and about six hundred bushels of turnips will be the result, which, it has been seen, are better than two or three tons of hay. Sow down in the fall to clover and grass, and a very large yield is secured, and the land will continue to yield for two or three years without manure, and, at the end of that time, it is put into pasture again; a most succulent feed will be obtained, which will hold on through the season, and the pasture can be used for two years, remaining so verdant that a half a dozen cattle can be fed where one usually is. Another advantage will be, that the range of the animals will be less, and their droppings be more concentrated, which will greatly tend to maintain the fertility of the land. Instead of putting on top-dressing, go through this system of rotation of crops. Another rotation would be to take stubble land, and, instead of beginning with corn, use turnips, putting on a dressing of manure, and then follow with wheat or any kind of grain; after which, put in clover, and then turn to pasture. By a sub-division of one hundred acres, corn, wheat, potatoes and pasture might be embraced in a small surface. But after all, whether we pursue rotation of crops or high farming, the truest method of farming is that which gives back to the soil what the plant has taken away, at the same time increasing its value as much as possible.

Mr. FAY, of Essex, was called on for remarks, and said that it was not with grain crops we could imitate the rotative system of foreign countries, but in Indian corn we have something much better. The principle of rotation is, that one kind of plant takes certain properties from the soil, and another, different qualities—as corn one kind, potatoes another, barley another, &c.; and thus one piece of land will supply ingredients for several different crops. From this fact comes the system of rotation, by which good crops are obtained with but little manure, much less than is now wasted in top-dressing. One great advantage of rotation with potatoes or turnips is, that, after they get leaved out they shade the land and protect it from drought, and draw the most of their sustenance from the atmosphere, leaving the ground rich, with the bulk of the manure applied yet in the soil, to operate upon the succeeding crop. Another advantage of root crops is, that a crop which is ripened in the ground, as a wheat crop, exhausts the soil much more than when taken from the ground and matured like the root crops. The potato is not an exhausting crop, and leaves the land in excellent tilth. The only rotation which he thought could be generally adopted in this country, was the following a ten years course. Suppose a farm of one hundred acres divided into ten parts, one-tenth in grass the first year; the next year maize, a good crop of which can be cultivated, under proper management, and without exhausting the soil. Or commence with turnips, and follow with corn or potatoes; then follow with the other crop, then again reversing it, and then go back to grass in five years; and, by pursuing the rotation on each section of the farm, grass may remain as long as it continues profitable. By beginning with a root crop, bringing the land under high cultivation, the farmer will find that his manure is not lost. Turnips should never be followed by any crop which requires to be planted in the autumn.

Mr. Dodge, of Sutton, was next called up by the Chairman. He gave it as his opinion that a system of rotation of crops would pay farmers much better than the old system. He thought the suggestion of the Chairman, in regard to concentrating the droppings of cattle in pastures, worthy of consideration. The pasture lands of the Commonwealth have depreciated exceedingly during the last thirty years. The rotation of crops is not understood in this country. Corn, potatoes, turnips and grass, are the most profitable crops for us to raise. He had plowed grass and turnip seed in together and the result was very gratifying. The grass was much more luxuriant than when planted alone and 500 bushels of turnips were obtained to the acre, which, at the estimate of Mr. Fay, that four tons of turnips are equal to one of hay, would make this crop equal to three or four crops of hay. Turnips are the things with which to enrich a farm; the farmer, however, should not carry them to market but keep stock to consume them on the premises. Carrots, also, should be one crop, because they require deep and rich culture. If corn followed carrots, grass would grow seven years and yield two tons to the acre with very little manuring.

Mr. Brooks, of Princeton, thought the rotation of crops should be different under different circumstances. Potatoes, corn, wheat, and then eight years in grass, is the most profitable on his soil. He was not so sanguine about turnips as some. He had raised them and they are an excellent crop but they are also uncertain. He could not reckon upon them oftener than once in two years. They do not start easy and are very sensitive to a hot sun and dry weather. If they lack rain for a few days in Spring they are pretty sure to wilt down and die. They need a moist climate. The same objections also exist against carrots. In dry seasons, too, turnips are more corky. He had succeeded best with flat turnips. Cabbages might be a good rotative crop to plant in rows with corn. He had known the experiment to be tried with much profit. He did not think, however, that rotation of crops could be gone into so largely as some gentlemen think. Gentlemen had spoken about keeping pastures verdant the year round; he did not believe that it could be done on account of our severe drouths. Could it have been accomplished last season? As for cultivating pastures and occupying but little surface it will not pay while land is so cheap as it is in this country. We must run over a great deal of land because labor is too high to make extensive farming profitable.

Mr. McLelland, of Sutton, coincided in the remarks of Mr. Brooks and thought the remarks of the Chairman would apply rather to market farming, not being practicable in the legitimate farming of the State. He described the method pursued at the South, which is to let large portions of a plantation lay idle for a number of years, in order to give it rest and time to recuperate its energies.

Mr. Emerson, of Boston, inquired what kind of grass was the best to stock a pasture with. He had a pasture which he had allowed to "recuperate" for ten years and the result was nothing but moss, briars, and mongrel grass. He was going to disturb it and did not mean to let it rest so long again.

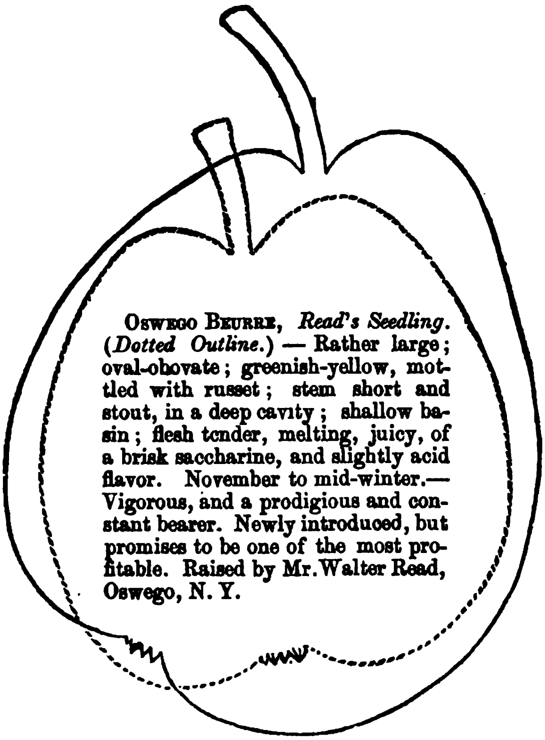
Mr. McLelland, of Sutton, replied that he considered a variety called the Rhode Island "bent" to be the best. It is lighter and a little different from red top. In regard to the uncertainty of turnip and carrot crops, alleged by Mr. Brooks, he said that in his neighborhood turnips were regarded as a quite sure crop. He considered them the most profitable crop in proportion to the expense of growing them for feeding stock. He thought it a good plan to cut the grass early in the season, then plow with the Michigan plow, put on twenty or thirty loads of compost, and then plant turnips. This would put the land in excellent condition for carrots the next year. The latter he considered as certain and profitable as any crop he ever raised.

Mr. **Copeland**, the Chairman, corrected a statement of Mr. Fay in regard to corn, potatoes, barley, &c., each taking different ingredients from the soil. Chemical analysis shows that these crops all take about the same matters from the earth, although not the same quantities. In regard to the drouth affecting root crops his observation, during considerable travel last season, showed that they bore the severe drouth better than any other crops. He also remarked to Mr. Emerson that ashes applied to the roughest pasture lands will bring in white clover.

Mr. **Flint**, Secretary of the Board of Agriculture, remarked that as a general rule the rotation of crops in this country should be much shorter than that in England, as it is with us the desired object to keep the grass lands in the best condition. It should also be adapted to different kinds of soil, as one system will not do for all.

The subject for the next meeting is *The Cultivation of Fruit and Forest Trees.*

OSWEGO BEURRE AND BEURRE DIEL PEARS.



Oswego Beurre, *Read's Seedling.* (*Dotted Outline.*) — Rather large; oval-obovate; greenish-yellow, mottled with russet; stem short and stout, in a deep cavity; shallow basin; flesh tender, melting, juicy, of a brisk saccharine, and slightly acid flavor. November to mid-winter.—Vigorous, and a prodigious and constant bearer. Newly introduced, but promises to be one of the most profitable. Raised by Mr. Walter Read, Oswego, N. Y.

Beurre Diel. (*Larger Outline.*)—Large; obtuse-pyriform to obovate; lemon or orange-yellow, marbled with russet, large brown dots; stem rather long, stout, in an uneven cavity; flesh whitish, rather coarse, half melting, rich, sugary and delicious. When perfect, is first rate, but often insipid or astringent, being difficult to ripen. Rather apt to crack. It requires a warm location, high culture and warm season in the North. More certain in the Middle States and in the West. Best on quince. Foreign.

What does it cost to Fence?—The amount of capital employed in the construction and repair of the wooden fences in the United States, would be deemed fabulous, were not the estimates founded on statistical facts, which admit of no dispute. Burknap, a well known agricultural writer, says: "Strange as it may seem, the greatest investment in this country, the most costly production of human industry, is the common fences, which divide the fields from the highways, and separate them from each other. No man dreams that when compared with the outlay for these unpretending monuments of art, our cities and our towns, with all their wealth, are left far behind. You will scarcely believe me when I say that the fences of this country cost more than twenty times the amount of specie that is in it."

KEEPING POULTRY IN LARGE NUMBERS.

LUTHER TUCKER, ESQ.:—In the Country Gentleman of 25th inst., D. H. R., of Hartford, Conn., wants to know *how* to build a chicken house for "about 1,000 fowls." If my poor opinion is worth anything, *he will not build it at all.* Fowls, in any large number, will not thrive unless they have a *wide range.* They are, partially, a grazing animal. When the ground is bare of snow, in winter, they pick the grass if they can get it, and are fond of *green* vegetables of any kind. In summer they pick and eat grass every day. They are great scavengers after slugs, insects, and all kinds of flesh. They are better, also, for having some flesh food in winter; and abundant *air, fresh* and *pure,* the must have *always.* Although I have seen it tried, I never knew a large collection of several hundred fowls succeed *in a confined place.*

A few years ago some enterprising man from the country came near town, and enclosed an acre or two of ground with a high picket fence, and put up a building, at an expense of near or quite a thousand dollars, intending to supply eggs for the Buffalo market. He had his barn well done off with any quantity of roosts, nesting places, and other conveniences. He started his concern with seven or eight hundred chickens, and for a few weeks, crowing, cockfighting, laying and cackling went on to his heart's content. He had food of all kinds for them and great anticipations were indulged of fortune-making in his chicken enterprise. But three or four winter months told the story. The fowls got diseased—the hens first eat the feathers off the *roosters*—or what were left of them after they had *fought* themselves almost bare, and then the hens unfleeced, in the same way, each other. They stopped laying, were tormented with lice, got the "roup," went moping about the place, and died off like a pestilence; and by spring, but a few miserable, sickly things were left, with scarce life enough in them to crow up the morning!

The difficulty was not in want of food nor care. But, from the necessity of the case, they were crowded in their roosts; they were disturbed by each other in their nests, and had not room enough any where, even with the outside range of an acre of land. The truth is, that to flourish, hens must have their *liberty,* when kept in large numbers. They want to range the fields by day and not be crowded at night. They want a *variety* of food and to *help themselves* to it. They need *exercise,* pure air, and enough of both. I knew one man, or rather the man's wife, in the Scioto Valley in Ohio, who kept five or six hundred fowls —that is, she told me she had that many—and I don't doubt it, for the whole territory, for acres about the farm, was speckled with them by day, and the trees and the corn-cribs and the barns and the sheds were filled with them at night. They had a great big farm of a thousand acres, or more, and full corn cribs for many rods in length, where the hens went at pleasure, and they made nests under the trees, and among the bushes, and all about the buildings, and in the back kitchen, and just where they had a mind to: and they sat on their eggs and hatched out their chickens at will—a self-sustaining poultry establishment, in fact. This plan worked; but as to the *profit* of it, I doubt whether the old lady could give any intelligible account in the matter.

No; I believe the only way to make poultry profitable is to keep them in the "old way." Proportion the number to the ground and buildings you have. Give them liberty to run at large for a portion of each day in warm weather, with comfortable quarters in winter, and pure air, always. I have known sundry other enterprises, like the Buffalo one I mention, tried; but I never knew one *permanently* successful. They were all in turn abandoned. Yours truly, L. F. A.

Black Rock, Jan. 2, 1855.

Country Gentleman.

For the New England Farmer.

GUANO WITH RYE STRAW.

MR. EDITOR:—The letter of Mr. William C. Little, in your issue of March 10th, is a valuable one, and will doubtless influence many farmers in regard to the use of guano and superphosphate of lime. That both these agents are valuable in the highest degree to the farmer, is very certain; but it is equally certain that we still need much light in regard to the use of them. While some among us have derived much benefit from them, others, thus far, have been inclined to think that they had "better have let guano alone."

Last season I blundered upon an experiment, with the results of which I feel highly satisfied. Perhaps some of your readers may be benefited by the hint. Late in the spring I had in my barn a large quantity of rye straw, and did not exactly know what to do with it. I was unwilling to sell it at a low price, thinking it would be more for my interest to return it to the soil. But how to get it there was the question. The stalks were long, stout and stubborn. I first spread it in the barn-yard, and allowed it to be thoroughly soaked in the rain; I then threw it into a heap, hoping it would *heat* and become friable; but after waiting a week, I perceived no signs of fermentation. I then opened the heap, and proceeded to reconconstruct it, sprinkling guano in small quantities upon the layers as they were laid up. In a few days the steam issuing from the heap, showed that my wishes were about to be realized. But by this time it was past the beginning of June, and whatever was to be done in the way of planting must be done quickly. I took the straw (a great part of it still unaffected by fermentation,) and putting it into hills, planted corn upon it, intending to cut it up for fodder.

My neighbors smiled at the operation as if it were labor thrown away. I feared myself that it would be pretty much so. The seed came up very quick, and grew rapidly. There was a profusion of stalks in each hill, and their deep green color attracted the notice of passers-by. As it grew near the time of "cutting up" I could not bring myself to do it; I told a neighbor that if he would cut out all but four stalks in each hill, he might have what he could get in this way. He was glad of the job, and made good wages. The rest were left to grow, and the produce, notwithstanding the late planting, the natural dryness of the spot, (a gravelly knoll,) and the fact that so much of the strength of the manure was withdrawn by the stalks cut for fodder, was as handsome corn as you would wish to see.

Some potatoes planted with the corn, and in the same way, were among the very best I raised.

Agricola.

AGRICULTURAL PREMIUMS.

Every observing person, as he passes through the various sections of our State, cannot fail to notice that very important advances have been made in the art of agriculture during the last ten years. Improvements are evident in many particulars; and a prominent one, observable everywhere, is the *reclamation of low meadows*, heretofore sacred to frogs, flags and febrile diseases, partially inundated, and covered with a reluctant growth of moss-enveloped trees, in a state of decrepitude from their youth, and always appearing entirely too old for their age. Beyond affording a few berries in summer, a little coarse herbage for cattle during extreme droughts, and sundry loads of black alders, hackmatack or swamp maples for fuel, they were of no use to the farmer, save as "a receptacle of things lost upon earth." They were an offence to the nostrils, a foul blotch upon the landscape, and a plague to their possessors. But, lo! see what Industry, aided by the fair hand of Science has done. From this chaos of materials, and these Stygian rivers, we may see not only the greenest lawns in April, and the full harvest in July, but the most delicate garden products, whose roots find rich pasturage in the light, porous, and congenial soil, drained, lightened and penetrated by the cheering rays of the sun. Not only the more hardy vegetables, but the delicate celery, broccoli, the strawberry and choice flowers of the garden, find a position and aliment which they like, and from which they present their most perfect organizations.

Now, redeemed from their "reign of terror," thousands of acres of these bogs, once worth from five to twenty dollars per acre, will sell at from fifty to two hundred dollars, according to the position which they occupy. It is now ascertained that they are among our most profitable lands; that when once reclaimed and brought into "good heart," they will yield a fair profit, for a greater number of years, than any other lands we possess.

The *Draining* of uplands, has also brought many tracts of cold, springy land, into a warm and friable condition, and capable of producing the finest grain and grass crops. But though productive of excellent results, already, the principles of this art are not generally understood, and consequently much valuable labor is lost for want of a proper direction.

Another obvious improvement is in the division of lands. Instead of dividing fields into lots of one, two, three, or four acres, farmers are taking out fences, and giving themselves ample scope in extended fields, and thus cutting off the "unprofitably gay" furzes, and mulleins and burdocks, that "hug the walls," and find moisture and warmth under their protecting sides. At the same time these generous fields give an air of amplitude and character to the homestead, which is gratifying to the possessor, and pleases the traveller of taste as he passes along.

The appearance of the rural gardens of the State shows that the teachings of the agricultural papers and the farmers' clubs have not been uttered in vain.

Better plowing, better modes of planting, and harvesting, and a truer taste in the architecture of the farm buildings, all attest that there is a spirit of inquiry awakened among the people, and that healthful progress will follow.

But none of these were the particular points upon which we intended to remark when we began this article. In looking over some of the premium lists of the present year, an unusual liberality in the sums appropriated to premiums, and a wider range of objects introduced, was noticed, than we remember to have seen before. It led us to notice how systematic and complete are the operations of our county societies, and how their arrangements are calculated to reach everybody, the small farmer, remote from the large towns, as well as the amateur and extensive cultivator.

These attempts by the farmers themselves to "improve the soil and the mind," incites good men to offer still further inducements to progress; so we find in Essex county that the Hon. Richard S. Fay, of Lynn, has generously placed at the disposal of the Trustees of that county the sum of two hundred dollars, for the following purposes, viz.:—

1. For the best and most satisfactory experiment with a mowing machine, operated by two-horse power, on not less than fifty acres, on any farm or farms within the county, $50,00.
2. For the best and most satisfactory experiment with a one-horse mowing machine, on not less than twenty-five acres, on any farm or farms within the county, $25,00.
3. For the best mowing machine, $25,00.
4. For the best and most useful agricultural implement, not being a mowing machine, $20. Second best do., $15. Third best do., $10. Fourth best do., $10. Fifth best do., $10. Sixth best do., $10. Seventh best do., $5. Eighth best do., $5. Ninth best do., $5. Tenth best do., $5. Eleventh best do., $5.

Note.—In regard to the operation of mowing machines, the competitors will not be restricted to their own farms, but may go from farm to farm. A statement in writing will be required of the working of the machine, any accidents occurring to it while at work, the number of horses employed, and the number of hours in actual operation. All entries of mowing machines must be made with the Secretary, in season for the committee to view them in operation before the day of the Show, and they must be exhibited at the Show that the public may have an opportunity to examine them.

The Trustees reserve the right of withholding all or any of the above prizes, to be carried forward to another year, at their discretion, and no award will be made for any agricultural implement which is not of the best workmanship, and of such a character as to commend it to the farmers of the county.

The Middlesex Society has offered nearly a thousand dollars in premiums, and the Norfolk so much that we cannot spare time to add them up—probably much more than the Middlesex. The State Society has also appropriated most liberally for the purpose of the special improvement of the dairy, as the following will show from the Essex bills.

The following are offered through the liberality of the "Massachusetts Society for the Promotion of Agriculture."

For the best dairy of cows, not less than six in number, and which shall have been owned by the exhibitor and kept within the county not less than five months previous to the cattle show, $75,00. For the second best, $50,00. For the third best, $25,00.

Note.—The competitors must exhibit their dairy of six cows, for which they claim a premium, at the show of the present year, and accompany the entry by a statement in writing, of their management on the farm, and their product during the season of trial, with all such particulars as will enable the committee to decide satisfactorily not only upon the *relative* claims of the several competitors, but upon the management and *absolute product in weight and profits of each dairy respectively*, whether in butter, cheese or milk, through the period of trial, viz., for five months before the show.

THE WHITE BLACKBERRY.

The White Blackberry is a most vigorous grower, often attaining a height of ten feet. It is a much more prolific bearer than the common variety, or field blackberry, the buds being set on the stalks in the immediate vicinity of each other—there being generally not more than the distance of two inches between them, and each bud having *two* spurs instead of one, as in the case with the latter. The berries are of large size, amber colored, and possessing a flavor remarkably rich and sweet. There is no difficulty whatever attending its cultivation; all that is essentially requisite being a rich, light, and moderately warm soil, and a copious and sustained supply of forest leaves and scrapings. A compost formed of these, with a small quantity of gypsum, and frequent hoeings to lighten the soil, and prevent the radiation and growth of weeds, will almost invariably secure success in the cultivation of this valuable fruit. The original cultivator of this fruit in this country, is Mr. J. S. Needham, of Danvers, Mass., and "Needham's White Blackberry," of which a very good engraving was published some time since in the *New England Farmer*, is probably the most prolific and valuable variety of the fruit to be found. The White Blackberry and Black Raspberry are both valuable fruits, and should have a place in every fruit and kitchen garden in the land.

FISH.

It is a well known fact that there are some varieties of fish which are able to live and propagate their species both in fresh and salt water. Among them are the smelt, the perch, the salmon and trout; and it is probable that many of our most valuable salt water fish might be transported to our inland ponds, and raised in abundance for marketable purposes. Smelts particularly, thrive well in fresh water, and often grow to a very large size; and it is not impossible that cod, haddock, flounders and even mackerel might, with proper care and training, be made to do as well.—*Boston Journal.*

The above suggestion in valuable, both to the people of the sea-coast and upon the interior rivers, lakes and ponds. Fishes can be transplanted and transported along the same shores, and from salt to fresh waters, or the opposite. Why then should there be any bay, or stream, or pond, that will not afford food for man? Why should not fishes be domesticated, increased in size, and improved in quality, by bringing them under culture, and furnishing, where it cannot be had otherwise, with proper food? The fowl and the beast have thus been turned to better uses than otherwise they would have had, and the dominion of the sea, as well as of the earth and air, is given to man.

Gradually the fishes of our streams and shores are disappearing. The little brooks and ponds of the country were once alive with them—and the pickerel, the perch, and the trout were very handy when it did not cost more time to take them than they were worth. So, too, on the sea-shores, we had an abundance of cod-fish, shad, salmon, herring, and others covered with scales or shells; but gradually they have decreased and some of them almost disappeared. In both instances we have disturbed and destroyed them; we have paid no regard to their wants, and the ways and times of their increase; and hereafter we shall suffer their loss, or by proper attention and provision must secure their continuance.

By changing fishes from one locality to another we can habituate them to new homes where they may turn to pleasure and profit. We have seen this done with oysters, lobsters, and other shell fish; and just as well it has been and may be done with other species. You can seed the waters with what they are fitted for, as well as you can the land. We have an example of this in the tautog, which is highly prized about Plymouth. They were unknown in Massachusetts Bay till 1790, when a fisherman took a load from Narraganset to Boston to sell; but as they had not been in the market before, nothing could be obtained for them, and they were finally loosed from the well of the boat near Charles River bridge, and have since that time stocked the coast. In the same way any fishes may be transported from one shore to another adapted to their habits; and where they will live in fresh water, from the oceans to the ponds. The rivers a hundred miles in the country might be filled with bass, or others that line the running water; and ponds, like Winnipisseogee for instance, might furnish cod, pollock, haddock and mackerel. It were certainly worth the experiment. It would be an easy thing for the farmer, if he could run to his little brooks for his dinner, as he does to his barn-yard; and so it would be to persons on the sea-coast, if they had their live fishes where they could always be taken. In the Sandwich Islands the natives form fish ponds all along the shores, and they are a source of revenue to the owners. They leave a channel for the fishes to enter that would spawn, and then close the mouth so as to retain the big ones and let the small ones go free. Those retained, become by care large and fleshy. If, however, fishes could not be transplanted from the oceans to the ponds, they could from our western lakes, and thus the whole country might be supplied without going abroad.—*Newburyport Herald.*

For the New England Farmer.

LICE ON CATTLE.

If not now, the time is near at hand when vermin will trouble our cattle. The extra keeping of six quarts of oats per day, will not keep the flesh good when the skin is covered with these destructive insects. I will give my method for killing the lice, which may be beneficial to the readers of the *Farmer*. Sprinkle your stable floor with charcoal dust, (which is easily procured at any blacksmith's shop,) put four quarts under the fore feet of every creature, and if the lice are very plenty, sprinkle some on their backs, then apply the card faithfully, and in a few days you will find you have conquered the enemy.

Canaan, Vt., 1855.

REMARKS.—Excellent suggestions, for several reasons. The charcoal will not *tan* the living hide, as some people do with ashes and ley, nor *poison* the animal as others do with unguentum. If the charcoal does not kill the vermin, it will prove an excellent absorbent in the manure heap. Let this little fact be remembered and practised upon, and no one need to be troubled with vermin on their cattle or poultry. "Insects do not breathe through their mouths, but through little holes, called spiracles, generally nine in number, along each side of the body." Now, if the skin and hair are oiled or greased, and carefully rubbed all over the animal, the insects cannot move about without coming in contact with it; these minute breathing holes become filled, and they die. When the remedy is properly applied, we have never known it to fail. It requires but a very little oil, but the application may be necessary two or three times. WILLIAM BETHEL, of Quechee Village, Vt., will find his inquiries answered here.

For the New England Farmer.

MONTHLY FARMER FOR MARCH.

Why is Farming Despised?—A clear-headed statement here of six reasons,—one of which is thus expressed: "There is a seemingly natural, innate repugnance—common to almost every individual—to daily manual labor." To which the editor appends this remark: "All the result of education." My recollection of the process through which I passed in learning to endure daily manual labor, my considerable experience in training boys to habits of continuous industry, and my reading and observation, are decidedly in favor of the innate theory. We may naturally love play and activity, but it seems to me that we as naturally hate drudgery and steady, hard work. The Indian glories in the chase, but he scorns to labor. Can it be "the result of education" that his "untutored mind," and body too, revolts from daily toil with a repugnance too intense to be overcome by any system of education, or by any amount of rewards or severity of punishments? "Slavery and the slave-trade," says Bancroft, "are older than the records of human society." But, why was there ever a slave in the world, or, if slaves, why the lash and whipping-post, if this repugnance were not innate and common alike to both master and servant? "In the sweat of thy face shalt thou eat bread," was pronounced as a curse, and as a curse it has ever been regarded by the human race. Submission to this decree may prove to be the wisest course for us, as submission to the sentence of earthly tribunals is for transgressors of human law, and yet the "sweat of thy face" and the "hard labor in prison" remain punishment.

These remarks are made in the conviction that the question is one of the highest practical importance. If we look upon repugnance to daily manual toil as the result of education, then it may be cured by education; and agricultural colleges may be just the things to inspire that love of hard work, to impart that gift of continuance in daily toil, and to establish those habits of enduring industry, which shall give to the scythe and axe, the hoe and manure-fork, even stronger attractions than the yard-stick and gold-pen now have for our aspiring youth. But if, on the contrary, we believe this repugnance to be innate,—"bred in the bone,"—natural, then shall we hope to overcome it only by such course of training as shall finally, by force of habit, establish the love of industry as a "second nature." This of course requires time. Not only from day to day, but from year to year, must the "daily manual labor" be continued, before the love of it shall sweeten our toil. It is a long process, but good Yankee farmers can be manufactured in no other way, either in New England or Kanzas, as, I fear, many a soft-handed emigrant to the plains of the far west will learn by sad experience.

"*Criticisms.*"—Here are three objections to the *Farmer*. 1. Articles are published unseasonably. 2. No reviews wanted. 3. Articles are repeated in "the same number." In addition to the remarks of the editor in reply to the first objection, I would say that, to my taste, the Monthly *Farmer*, something like the Baldwin apple, though good to look at and answering passably well for immediate use, is not really ripe for study till about January, when the index furnishes the means of readily comparing the ideas and practices of different men on particular subjects. But there are all sorts of readers. And the Monthly *Farmer* seems designed especially for that plodding class who read a book or an article over and over, and still like to know what other people think of it, before they fully adopt or reject its teachings, while the Weekly *Farmer*, more prompt and seasonable, better meets the demands of those strong-minded people who study books by their title-pages, and whose comprehensive minds grasp the minutest details of elaborate dissertations by a single glance, and with whom an article once read is read, "and that's the end ont." To such readers all reviews are alike stale and unprofitable, while to another class they are interesting in proportion to the ability with which they are executed. If this second objection, instead of questioning the wisdom of the plan, had been based upon the incompetency of the writer of the reviews, I should not have answered him a word. But the more experience I have on the subject, the more heartily do I approve of the plan, and the more ardently do I hope the right man will soon be found for its execution. Devoting more hours to daily toil than fall to the average lot of laboring men in New England, with few books and no "study" but the family-room, if I had the ability, I lack the time and means for such investigation as is necessary for the accomplishment of a task which was commenced unawares and unintentionally, and which will be gladly relinquished when Mr. Stone will furnish "something more interesting to those who have read the previous number." The third advice, to avoid the repetition of articles in the same number, has all the force of a caution against any other class of typographical errors, that printers are probably much more sorry to make than Mr. Stone is to discover.

A short Lecture on Extravagance.—It does seem to me that if our lectures on this subject are short, they ought to be thick. If, under the rigid economy of our fathers, who made their own clothing and most of their implements, their farms "run out," what will become of our soil when it is taxed with the purchase of every thing ready-made and far-brought?

Take care of your Cattle.—Just the right kind of directions to make them "chew the cud of contentment."

Mortgages on Farms.—Friend Durand and myself have now had our say on this subject, and people hereafter will do as they please, or as they can, about following our advice.

Lunar Influences.—It looks wise to talk of "prejudices," I know, but I wish to ask those who are now disposed to make a laughing-stock of the moon, whether it is not better for people to have a particular time for particular work, than to have no time at all. I hardly believe the moon was made in vain; and until a better time is discovered for cutting bushes, for instance,—and I have never found any,—let us have faith, and slash into them "in the old of the moon" next August, and see if that old wall and the lower corner of the "mowing" as well as the old "cow-pasture," does not look more tidy. Some farms do look as though they had lost all faith in the moon!

Farming in Iowa.—"Nemo" may be assured that we down-easters have a very great interest in people away out on those prairies. The very thought of planting in a soil that will give a good crop without manure, makes the nerves twitch among those who are in the habit of paying seven dollars a cord for it. And it is not very strange that some of our boys should be talking of going west, though you get but three, and-a-half for pork. If it is possible for you to keep your "gravity" long enough to give us a few more "items," please do so before the "shakes" shall carry you from "gay to grave," and never bring you back again.

Training Grapes.—A tip-top article with bran new cuts illustrating plain directions for beginners.

The Concord Grape.—The most laudatory article I have yet seen of this grape. The writer thinks it has been sufficiently tested to warrant the assertion that "*every one* who has a house and garden, may have just such vines to sit under" as he saw in Concord. I have seen the Concord grape on exhibition, and think highly of its promise, but is it not possible for the fancy of the enthusiastic to run a little wild on grapes as well as hens? The Northern Spy apple has been tested much longer than the Concord grape, but can it be said that the "reputation and value" of that apple is yet "established?"

"*Pruning Fruit Trees again.*"—If not entirely settled, it is no fault of "W. D. B.," whose articles are as brimful of good sense as of good nature. We shall try to "learn our letters" in the great alphabet of which he speaks, and with such teachers as himself and other writers for the *Farmer*, it must be a dull scholar that makes no progress, for in this number we have articles "About Pear Trees," remarks on producing new varieties from seeds, on the effects of climate and cultivation, on preserving fruit, with reports to the Pomological Convention, from several States. &c.

Legislative Agricultural Meetings.—Full reports of the discussions at four of these meetings of our law-makers. A READER.

Winchester, March, 1855.

REMARKS.—The language our correspondent employs, shows *how* the boy is educated—that is, through "*drudgery*, and *steady, hard work.*" And therein lies the secret—it is not *only* drudgery, but *steady*, hopeless drudgery! And this constraint is imposed upon young and healthy boys and girls, impatient of long-continued effort in any thing, as it would be *unnatural* if they were not. No, no! God has not so constituted his intelligent creatures as to *hate* the labor by which their bread is to be produced. The well-fed horse and ox enjoy the labor to which they are applied, and so would the boy if he were taught it as judiciously as is the colt! "*Steady drudgery and hard work*," for a boy whose limbs are as lithe as an antelopes, and whose mind springs from object to object, as though resting on the wings of a bird! No wonder he has a prejudice against regular employment.

For the New England Farmer.

PROFIT OF HENS.

Mr. Editor:—I send you the following account of the management of a flock of hens, 36 in number. They were allowed to roam where they pleased, with the exception of a few weeks in the first part of the winter, when they were confined to a pen 12 x 16 feet, with the privilege of going out doors occasionally. In June, they were confined to the barn most of the time, to prevent their depredations on my growing corn. Corn was kept by them most of the time. The account stands thus, commencing with December, 1853, and ending with November, 1854:

Hens.		Cr.
December, 1853, by		$ 00 00
January, 1854		00 00
February, "		00 00
March,	" 9 doz. eggs, at 15 cents per doz.	1 35
"	" 9 " " 12 " "	1 08
April,	" 17½ " " 18 " "	2 27
May,	" 30½ " " 13 " "	3 96
June,	" 24 " " 13 " "	3 12
June,	" 2 bbls. manure	2 00
July,	" 22½ doz. eggs at 14 cents per doz.	3 15
August,	" 30 " " 15 " "	4 50
September,	" 17½ " " 16 " "	2 77
October,	" 5 5-6 " " 15 " "	0 87
November,	" 5 hens killed	0 75
"	" 6 hens kept	1 00
"	" 2 bbls. manure	2 00
Total income		$28 82

Hens.		Dr.
December, 1853, to 2 bushels corn		$2 00
January, 1854,	2 " "	2 00
February, "	2 " "	2 00
March, "	2 " "	2 00
April, "	1½ " "	1 50
May, "	1 " "	1 00
June, "	1 " cob-meal	0 50
" "	1 " corn	1 00
July, "	¾ " "	0 75
August, "	1 " "	1 00
September, "	1 " "	1 00
October, "	1½ " "	1 50
November, "	1 " "	1 50
Five hens lost		0 82
Total cost		$18 62
Income		28 82
Cost		18 62
Net income		$10 20
Income per head		0 28½

The above does not show a *great* profit, yet it shows a fair one. I am convinced that a much greater profit might be made by providing a good poultry house and yard, and a variety of food. Mine had a full supply of lime, and occasionally a little raw meat. They were provided with a rack to roost upon, made by boring holes in two poles, six inches apart, and inserting slats four feet long. The rack was laid on poles, about three and a half feet from the boards laid to receive the manure. I found no great difficulty in making them roost on the rack; I simply drove them from all other places, just before dark, and they soon learned where to go to roost to be let alone.

S. Tenney.

West Poland, And. Co., Me., 1855.

For the New England Farmer.

RECLAIMING SWAMP LANDS.

BY DR. JOSEPH REYNOLDS.

This subject is beginning to arrest the attention of New England cultivators. No subject connected with farming can more properly occupy the thoughts of the farmer, who has such land, still unreclaimed, upon his farm. The frequent droughts to which we are subjected, are teaching us to set a higher value upon such lands, than we have hitherto done. Experience is showing us that they are the most productive and the most reliable lands which we cultivate. It was formerly supposed that potatoes grown upon such lands were more liable to disease, than those grown upon uplands. But I think the experience of the last two years has shown that potatoes grown upon peat lands, are as little liable to rot, as those grown upon any kind of soil whatever, while the yield was much larger than upon any other soil.

One of my neighbors, the past season, realised a clear profit of ninety dollars an acre from a peat swamp cultivated in potatoes, which three years ago would not have sold for 20 dollars per acre. Now the land is worth a hundred dollars per acre. One of the finest pieces of reclaimed land which I have seen is situated near the centre of Carlisle, on the road from Concord to Lowell. I think it contains not less than 20 acres. A few years ago, it was an unsightly swamp, filled with stumps hassocks and bushes. The water stood upon a large portion of it, most of the year. It was the favorite resort of bull-frogs and tortoises. The bluberries were the only product of any value that it yielded. The only pleasant memory associated with it is the song of the blackbirds that sported and whistled around its margin in the spring time. By skillful and indefatigable labor, it has been converted into one of the most level and beautiful meadows to be found in Massachusetts. It always rivets my attention when I pass by it, and I don't cease to look at it, while any portion of it is in sight. Immense quantities of roots have been extracted from it, which have been used for fuel. Its surface has been smoothed by the bog hoe and the plow. It has been dressed with a compost of barn manure, and gravel mixed together upon its margin. Small portions of it have been reclaimed annually in this way, principally by the labor of the owners, until it has now been converted from an offensive blotch upon the bosom of mother earth, into a spot of beauty, that delights the eye of every beholder. I have been informed that a portion of it cultivated the two past years in potatoes yielded a clear profit of $100 per acre. Most of it is in grass, and yields from two to three tons per acre of fine hay. This land, a few years ago, was not worth $10 per acre, now it is worth $200. The secret by which $100 has thus been converted into $4000, is through draining. The fuel which the owners have taken from this swamp, and the potatoes which they have grown upon its surface, have paid them for their labor from year to year, and, now they have a valuable estate which will continue to yield them large crops, with but little expense in its cultivation. How could they have made a more profitable investment than this? But they did not invest money. They have created this property by their own labors, and the proper question is, in what way could they have employed their labor more profitably. The effect produced upon such lands by draining is truly astonishing. There are several reasons by which the beneficial effects of draining may be accounted for. But we shall speak of only one of these reasons at present.

Draining elevates the temperature of the soil many degrees, and thereby fits it to yield a vigorous growth to plants, which before refused altogether to grow upon it. When a soil is saturated with water, the most intense heat of the sun can raise its temperature but very little. If you place a kettle filled with water over the fire, the temperature of the water will rise rapidly until it reaches 212 degrees. The water then begins to be converted into steam. You may continue to add fuel. and apply the bellows, but the water grows no hotter. All the caloric added is rendered latent in the change of form which the water undergoes. In other words, the caloric is carried off by the steam as fast as it is imparted to the water. Steam is water combined with a certain amount of caloric. Abstract this caloric from steam, and it becomes water again. So the heat of the sun poured upon a wet soil, is employed in converting a portion of the water into vapor, and is conveyed away by the vapor, just as the heat of the fire is carried away from the water by the steam. Thus the temperature of the soil of the swamp filled with water, is several degrees lower than that of the soil of the adjacent dry land, and you cannot by any possibility raise the temperature of this soil until the water is evaporated from it. When the water in the kettle is all converted into steam, you may heat the kettle to a red heat. So when the swampy soil is freed from water, the heat of the sun will warm it equally with adjacent lands, and indeed its temperature will often be found higher than that of other lands, for its black carbonaceous soil absorbs caloric more rapidly than brighter colored soils. Thus the first effect of draining is to prepare the soil to be warmed by the sun. It is equivalent to transporting it many degrees south into a more genial clime. It is the first step in the redemption of such soils; all other means without this will be of no avail. You may level and plow and top-dress, and sow grass seeds. But it will constantly tend to return to its natural state. Meadow grass will be constantly coming in and the herds grass and clover constantly dying out, because the soil is not warm enough to produce any other kind of grass. Many swamps and meadows overlie a stratum of sand, or hard pan. The draining should, if possible, be sufficiently deep, to carry off the water from the whole depth of overlying soil. Whether the water is carried off only to the depth of a few inches and the soil is left wet and muddy below this, the water is drawn up by capillary attraction to the surface, and the process of evaporation is then kept up, to such a degree, that the temperature is not sufficiently elevated to afford the needed stimulus to the roots of plants. Hence the object aimed at is not attained. Deep draining, that shall free the whole soil from stagnant water, is the only draining that can be effectual, or that is worth attempting. In many instances border draining that shall cut off the spring water fromt he surrounding highlands is the only effectual method.

But enough for once. J. R.

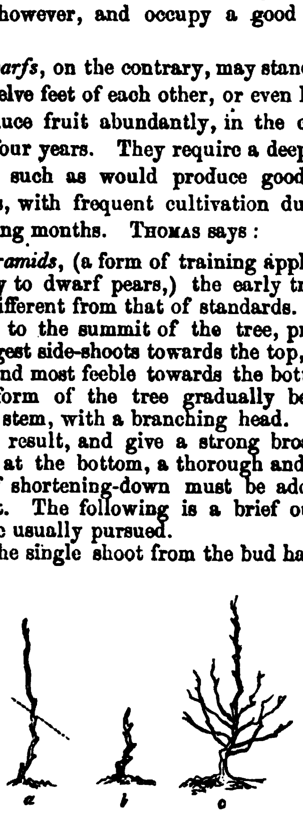
CULTIVATION OF THE PEAR TREE.

In a recent number of the *Farmer* we gave many minute suggestions about the *cultivation of the grape*, with such plain outline illustrations as would enable any one, however unskilled in the practice, to proceed with success. We propose now to do the same with the *pear*, availing ourselves of such help as we find in the books—particularly THOMAS's American Fruit Culturist—and of suggestions gathered from conversations with some of the best pear culturists in Massachusetts. But this article will be devoted to *dwarf* trees; the *standard* trees being those in which the *natural* form is developed, and which attain the largest size, and produce the most fruit with the least care. They are slow of growth, however, and occupy a good deal of space.

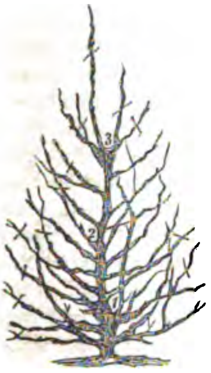
The *dwarfs*, on the contrary, may stand within ten or twelve feet of each other, or even less, and will produce fruit abundantly, in the course of three or four years. They require a deep, moist, rich soil, such as would produce good garden vegetables, with frequent cultivation during all the growing months. THOMAS says:

For *pyramids*, (a form of training applied most frequently to dwarf pears,) the early treatment is quite different from that of standards. As the sap tends to the summit of the tree, producing the strongest side-shoots towards the top, and the shortest and most feeble towards the bottom, the natural form of the tree gradually becomes a trunk or stem, with a branching head. To prevent this result, and give a strong broad set of branches at the bottom, a thorough and regular system of shortening-down must be adopted at the outset. The following is a brief outline of the course usually pursued.

After the single shoot from the bud has grown one season, (fig. *a*.) it is cut down so as to leave not over one foot, and if the tree is weak not over



six inches, (*b*.) As a consequence, the buds on this remaining portion, receiving all the sap, make a vigorous growth. The upper one must be converted into a leader, by pinching off early the tips of the others, beginning first with the upper ones, which will be the strongest, and gradually descending, as the season advances, to the lower ones, which should be left the longest in order to give them the most strength, (fig. *c*.) Six inches of naked stem below the branches should be left, by rubbing off all shoots below; and if in a region liable to deep snows, this space should be a foot, to prevent splitting off the limbs by the weight of the snow, and for which object the tree should not be cut down lower than eighteen inches at the close of the first season. The pruning after the second year's growth, consists in cutting down again the leader for a second crop of side shoots; and these side shoots, and the new leader, are to be treated precisely as those below were treated the year before. At the same time, the last year's side shoots, on the lower part, are to be cut back, (the longest at the bottom, so as to give a pyramidal form,) in order to insure the growth of the buds upon them. The new side shoots thus caused, are to be pinched off so as to convert them into fruit spurs, except one shoot left on each as a leader, and another, if needed, to fill up the space made by the widening limbs. The pyramid may now be said to have been fairly formed; and it is only requisite to continue and prolong the same process for successive years. Figure *d*. represents a four year pyramid three times pruned, each section being shown at the figures 1, 2, 3, and the cross lines indicating the place for the fourth pruning. Fig. *e*. represents a perfectly pruned pyramid in bearing.

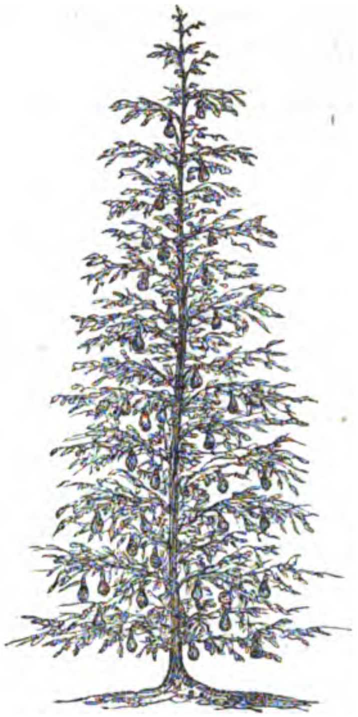


d.—Four-year Pyramid.

After the tree has attained sufficient size, its further extension is prevented by pruning back the shoots. If the fruit spurs become too numerous, a part of them are to be pruned closely out, so as to give an even and not crowded crop. When spurs become too old, they may be mostly removed for new ones to spring from their bases.

Some varieties of the pear throw out side shoots spontaneously the first year. Such trees may be treated in a manner not unlike the ordinary two-year pyramid. On the contrary, such sorts as have small or flat buds, may need a more severe cutting back than others, in order to arouse the buds into action and induce them to break into shoots.

Throughout the whole process of pruning and training pyramids, as well as every other tree, the frequent error of allowing the shoots and branches to become too thick and to crowd each other, should be carefully avoided. The size and beauty of the fruit, and its perfection in richness and flavor, where there is plenty of room for the full, vigorous, and healthy development of the LEAVES *which supply all the material for the growing fruit*, will repay well the labor required for this excellent result.


e.

Horizontal training is effected by carrying out branches to the right and left of the main stem, and is sometimes exceedingly beautiful and convenient on the borders of walks, on a fence or the side of a building.

All persons intending to cultivate the pear, even if on a limited scale, will be well paid for the trouble by visiting the gardens of those who have had experience, and looking at the forms of the trees and learning the modes of management by others. As much may be gained by observation, perhaps more, than in any other way.

Below we give a list selected by Col. WILDER, and another by Mr. JAQUES, of Worcester, both distinguished for their success in pear culture.

COL. WILDER'S LIST.

PEARS.

For three varieties:
Bartlett,
Vicar of Winkfield,
Beurre d'Aremberg.
For six varieties, add,
Bloodgood,
Louise Bonne de Jersey,
Golden Beurre of Bilboa.
For twelve varieties, add,
Andrews,
Belle Lucrative,
Seckle,
Flemish Beauty,
Urbaniste,
Glout Morceau.

GEORGE JAQUES' LIST.

PEARS ON QUINCE.

NAME.	TIME OF RIPENING.
1. Beurre d'Amalis	September.
2. Louise Bonne de Jersey	Sept. and Oct.
3. Urbaniste	Oct. to Nov.
4. Duchesse d'Angouleme	November.
5. Beurre Diel	Nov. and Dec.
6. Glout Morceau	Dec. and Jan.

PEARS ON PEAR ROOTS.

1. Rostiezer	Aug. and Sept.
2. Bartlett	September, (early.)

3. Flemish Beauty	September, (late.)
4. Seckel	October.
5. Dix	Oct. and Nov.
6. Beurre d'Aremberg	Dec. and Jan.

Extending the list, I would add,

7. Madeleine	August
8. Andrews	September.
9. Belle Lucrative	September.
10. Louise Bonne de Jersey	Sept. and Oct.
11. Urbaniste	Oct. and Nov.
12. Winter Nelis	Dec. and Jan.

We observe that in the above lists the old St. Michael is omitted. When in perfection, this pear is scarcely excelled by any that grows; or, at any rate, by only three or four varieties. Of late years, we are told that it has succeeded quite well in many localities. In setting even one dozen of trees, we should certainly include the St. Michael,—known also as the White Doyenne, Virgalieu, Butter Pear, &c.

TENTH LEGISLATIVE AGRICULTURAL MEETING.

Reported for the New England Farmer,

BY WILLIAM W. HILL.

Number *ten* in the course of Agricultural meetings took place at the State House on Tuesday evening, 20th inst.

Hon. ALBERT H. NELSON, of Woburn, a member of the Governor's Council, presided.

The subject for consideration, was—*The Cultivation of Fruit and Forest Trees.*

Mr. NELSON, on taking the chair, made some eloquent remarks upon the general subject of agriculture, and alluded to the fond hope which he cherished, of at some time breaking away from his professional labors, and cultivating a farm—his own broad acres,—and following that occupation which he believed more completely than any other promoted the best interests of the community. He was happy to believe that the time has come when the dignity, beauty and importance of agriculture are perfectly understood, and the farmer is no longer ashamed of his calling. Yet there lingers the idea that farming is not so remunerating as many other pursuits in life. It was his earnest conviction, however, that if the farmer would devote the same amount of mental and physical labor to his calling that the merchant does to his—if he would work as many hours, and direct all the energies of his mind to the great object of success, studying agricultural works and reading agricultural newspapers, with the same application that the trader bestows upon the financial articles in his daily paper, and informing himself of the wants of commerce and the laws which govern it—the farmer would reap large rewards more surely than the merchant. Mr. Nelson concluded by calling for remarks from

Mr. CUTTER, of Pelham, N. H., who proceeded to relate his experience and observation in the cultivation of forest trees, in which he had been interested for a few years. The cultivation of forest trees, he said, required as much knowledge and skill as that of fruit trees. In the first place, we should know how and when to save, and when to sow the seed of our forest trees, and should understand what trees are best adapted to our soils. Ornamental trees often fail from a want of knowledge on this latter point. Generally, if a man fancies a particular kind of tree, he transplants it to his grounds, without any regard to the adaptation of the soil to its growth. In the matter of sowing trees we must follow nature as closely as possible, and get the seeds when they are in the right state to sow. We know that the chestnut, oak, &c., are ripe in the autumn, when the frosts bring their fruit to the ground; the pitch pine ripens any time during the winter; the white pine in August; the yellow and black birch in July; the elm and maple in June; and the sugar maple in August and the first of September. A great cause of failure, is want of knowledge in saving the seed, and also in covering them too deep, or planting them where they will be exposed to a burning sun. Nearly all trees will fail to come up if planted in such situations, and should be put where they will be shaded. Maples and birches, however, being hardy, vigorous trees, will come up and grow anywhere. It would be a good plan to sow white birch (which ripens in November and December) with white pine, as the latter is apt to come up too thick. By so doing, the pines will grow up more slender and make much better timber. Forcible reference was made to the Yankee propensity to destroy trees. We clear land which is good for nothing, burn it over, and leave it a waste. There is great difference in setting out trees. It is almost impossible to make oaks and pines live—whereas maples do very well. The river or silver maple is a superior variety, which is almost always found with its roots in water. Four years ago the speaker took up some in a half bushel basket, and planted them, and now they are twelve feet high and three inches through at the butt. They will grow well on good uplands. Pitch pines may be sowed, but white pines may be transplanted if a good sod is taken up with them. The speaker concluded by recommending Emerson's work on trees as the best within his knowledge. It was published by order of the Massachusetts Legislature.

Mr. FLINT, Secretary of the Board of Agriculture, made some interesting statements in regard to the extent to which forest trees are cultivated in this State. In Barnstable county, twenty years ago, the cultivation of the pitch pine was commenced as an experiment, and now it is estimated that there are fifteen hundred acres covered with a growth of these trees. In Plymouth county, also, considerable attention has been bestowed upon growing trees, and forests of oak and locust have been successfully planted. If the experiment has proved successful in the sandy soils of these counties, there can be no question that trees might be cultivated elsewhere with profit, and to the great benefit of the community. The seed of the pines is easily obtained. The burrs are gathered in the fall and dried, either gradually or by heating them, and the seed rattles out. It sells in Barnstable for $1,00 per quart, and a quart is sufficient for one acre. When our forefathers landed at Provincetown, on Cape Cod, which is now but a barren sand heap, the promontory was covered with a dense forest and the soil was a spade deep; but on cutting off the trees the winds had a clean sweep, and blew the sands completely over the whole surface, thus converting it into a barren waste. In some parts of the Cape cedars have been tried to some extent, and they are now multiplying rapidly. Mr. Flint read an interesting letter from J. W. PROCTOR, Esq., of Danvers, in relation to the cultivation of trees, in which the remark was made that there could be obtained from an acre of rock maple trees as much value in sugar, and that without injuring the trees, as could be obtained from an acre of corn, while the wood of the trees would increase the profits.

Mr. FAY, of Lynn, was the next speaker. He said his experience in cultivating forest trees only covered a period of ten years, yet he had tried almost all sorts of trees, and had in particular experimented with oaks, of which he now has sixteen or seventeen varieties on his place at Lynn. We have a vast deal of waste land, which is too rough for the plow, and too rocky and sterile for grazing, which is capable of producing all kinds of indigenous oaks, and the only question is, how to get this land back to forest again. Nine years ago he planted with acorns a good piece of land, once covered with oaks; they came up, and the first year grew seven or eight inches, and that is their height now. It seems as if they were waiting for some course of nature with the soil, to get an impulse to grow. At the same time these were planted, he sowed some in a seed bed, covering them a couple of inches, took them up the next spring and cut off the tap-root, and then planted them in rows a foot apart, there being six inches of space between the plants, and after letting them grow for a year or two, until they were two or three feet high, he transplanted some of them to the same piece of land where the others were planted, and they are now ten feet in height. Care should be taken to keep cattle from the plants. In planting acorns, about three thousand to the acre are wanted, and after they come up they should be thinned out. If a plant fails, or is of poor growth, by cutting down to the surface of the earth, new shoots will spring up thriftily, and in this way just such a tree as is desired may be obtained. As to the varieties of oak, of course white oak is the best, although it is slow of growth. Yet there are other kinds almost as good, particularly chestnut oak, which is beautiful in foliage and form, perfectly hardy, and will grow on soil where the white oak cannot flourish. Another excellent variety is the pin oak, which is a rapid grower. The English oak, also, grows faster than ours, and will adapt itself to almost any kind of soil. English oaks imported by the speaker eight years ago, now produce a bushel of acorns, and are four feet in circumference. They grow as rapidly as the willow. Another valuable species is the ash, which will grow as well as the oak. The Scotch larch, too, is a superior tree, particularly for posts. They can be imported a foot-and-a-half high for $7 or $8 per thousand. They will grow upon any barren soil, and the wood is almost indestructible—far better than cedar. Some set out eight years ago are now thirty feet high. If it is proposed to grow oaks, take land which is of no value for any other purpose, planting 3000 to the acre, as many will not come up, and thin out so as to leave only four or five hundred trees—and at the end of forty years ten acres treated in this way would yield a sum which would hardly be credited—they would be worth all the rest of the farm.

Lieut. Gov. BROWN said he had had no practical experience in regard to the cultivation of forest trees, but he had noticed throughout New England a prevailing desire to cut down and exterminate forest trees. People enter a piece of land and make a clearing, cutting down all the beautiful maples, oaks, &c., and burning them, and then the very next thing go and plant trees for ornamental purposes! Their passion to destroy does not stop till they find perfect desolation all around them, and then they go to the swamps and pick out a few poor varieties for shade trees. If we go on as we have done here in Massachusetts, exterminating our forests, before many years there will be a great scarcity of indigenous trees, and the capabilities of the soil will quite likely be very seriously affected. It is doubtful, if the trees were all cut off, whether we could raise a crop of corn. Trees are great condensers of moisture, absorb much nutriment from the air, and drop their leaves; and in other ways tend to benefit the soil. A greater crop of grass can be got from a field where there are ten or twenty apple trees to the acre, and one or two hundred bushels of apples will be obtained beside. Mr.

Brown said he would like to hear something in regard to pruning forest trees. He had always understood that it would not answer to trim forest trees, particularly evergreens. The argument was that when the tree was done with the lower limbs, they would die and fall off. But he knew of a forest of white pines in New Hampshire which the owner had entered and trimmed, and he believed that it grew faster than any other within his knowledge.

Mr. Fay, of Lynn, said there was much difference of opinion about pruning forest trees. If oaks are stunted they should be cut off down to the ground, but after they are twenty feet high, the pruning should be done in a regular series, taking off the lower branches each year. The best time is in the summer, when the sap has ascended, as healing takes place when the sap descends, so that if cut in July the wounds almost immediately heal over. A great mistake is made in going into a forest with an axe. The trimming should be done very gradually after trees get twenty or thirty feet high, or their growth will be checked.

Mr. Cutter, of New Hampshire, said that he had noticed that where large limbs had been cut off it injured the timber. If white pines are trimmed when small, the wound heals over and they make good timber. An axe should not be applied in trimming a tree, as it invariably injures it. The great error in pruning is in doing too much at a time. If green limbs are to be trimmed it should be done in December, when the tree is frozen; April is the worst time in the year to trim. The dead limbs should be taken off in July and August.

Rev. Mr. Trask, of Fitchburg, followed in some appropriate remarks upon the æsthetic branch of the subject of cultivating trees.

Messrs. Brigham, of Worcester, and Buckminster of the *Ploughman*, made some excellent remarks upon the general subject.

Mr. Sheldon, of Wilmington, spoke practically on the matter, particularly in regard to fruit trees, and would have any one who designed to raise an orchard, take twelve trees, and trim one of them each month in the year—and thus decide practically the proper time for pruning trees.

On motion of Mr. Flint, the subject of *Fruit Trees* was continued to the next meeting. Adjourned.

Fire-flies.—In tropical climes, various luminous insects are attached to female head-dresses. They are also used as lamps. I have read fine print in a dark room by the light of two small Long Island fire-flies in a tumbler. But man was not the first to rob these living gems of their liberty and radiance. There are birds that seize and suspend them as chandeliers for their dwellings. The bottle-nested sparrow, or baya, is one of the kidnappers. Its nest is closely woven like cloth in the figure of a large inverted bottle, with the entrance at the orifice of the neck. The interior is divided by partitions into two or three chambers, one over the other. These are profoundly dark until lit up with fire-flies caught alive, and mercilessly fixed to the walls or ceiling with pieces of wet clay or cow-dung for sconces. —*From "The World a Workshop."*

LET US TRY TO BE HAPPY.

Let us try to be happy! we may if we will
 Find some pleasures in life to o'erbalance the ill;
There was never an evil, if well understood,
 But what, rightly managed, would turn to a good.
If we were but as ready to look to the light
 As we are to set moping because it is night,
We should own it a truth, both in word and in deed,
 That who *tries* to be happy is sure to succeed.

Let us try to be happy! some shades of regret
 Are sure to hang round, which we cannot forget;
There are times when the lightest of spirits must bow
 And the sunniest face wear a cloud on its brow;
We must never bid feelings, the purest and best,
 To lie blunted and cold in our bosoms at rest;
But the deeper our *own* griefs, the greater our need
 To try to be happy, lest *other* hearts bleed.

Oh! try to be happy! it is not for long
 We shall cheer on each other by counsel or song;
If we make the best use of our time that we may,
 There is much we can do to enliven the way.
Let us only in earnestness each do our best—
 Before God and our conscience, and trust for the rest;
Still taking this truth, both in word and in deed,
 That who *tries* to be happy is sure to succeed.

GRAFTED CHESTNUT TREES.

The *Cincinnati Gazette* publishes an interesting letter from Mr. Sheldon I. Kellogg, to the Wine growers' Association, dated Bordeaux, France, on the cultivation of the chestnut. He says:

"I have been much surprised in seeing the great dependence the poorer classes make upon the large chestnut for their daily food. It is cultivated in this neighborhood in great abundance for this purpose. All classes use them more or less; the rich having them daily brought upon their tables as dessert, either boiled or roasted. It is often made into a soup, which is highly esteemed. They are cooked in a multitude of ways, and I know of nothing of a farinaceous nature which is so very delicate and nourishing.

"The marron, or large chestnut, is the produce of the wild chestnut after being engrafted. The wild tree, at three or four years of age, is cut square off, say four or five feet from the ground. The stump is then split twice. These splits intersect at right angles at the centre of the stump. There is then inserted one good-sized branch of the same tree in every section of the splits, making four branches in each stump. Care is always taken to make the bark of the branches and the bark of the stump join each other as closely as possible. The graft is then surrounded with clay and moss, to prevent the overflow of the sap, and it scarcely ever fails of success. The period selected in this climate for this operation is the month of February. The produce of this graft is usually a fine, large, beautifully colored marron, about the size of our buckeyes. They are much more delicate in texture and flavor than our own wild chestnut. They are never eaten without being cooked. The tree is very beautiful.

EXTRACTS AND REPLIES.

GARDEN VEGETABLES.

Mr. Brown:—You will greatly oblige a constant reader of the *Farmer*, and a tyro in agricultural matters, if you will answer the following questions.

I have six acres of land, and intend making it a market garden. I wish a select list of the earliest and best varieties of vegetables,as follows:—

Best early peas for market; early cabbage; late cabbage; early cucumber; early sugar corn; early potatoes; early squash.

Can the "Valparaiso squash" seed be obtained in Boston?

Can the "top onions" be obtained in Boston?

At what seed store can I best obtain a supply of the above seeds together with others?

Saco, Me., 1855. J. R.

Remarks.—For peas take the *early Kent*—cabbages, *early York*—late cabbage, the *Drumhead*—for cucumbers, the "*frame*"—sugar corn, *eight-rowed sweet*—potatoes, *early white blue-nose*—for squashes, *early summer crook-neck*. We cannot tell you where the Valparaiso squash seed is to be found—but it isn't worth raising. The "top onions," and all the other seeds you desire, may be found at Ruggles, Nourse, Mason & Co.'s seed store, at Quincy Hall, and probably at the other seed stores in Boston.

BOOKS FOR FARMERS.

Simon Brown, Esq.:—Dear Sir,—I have a desire to study the science of agriculture, and request you to furnish, a small list of the very best primary works for me to commence with—say to the extent of from $10 to $25.

Several of my country friends wish a plain work on agricultural chemistry, and have spoken of Chaptal and also of Johnston. Please name the best works on that special subject. I am willing to devote my leisure hours for three or four years to a *preparation* for farming. I wish to understand the theory and the practice of true agriculture. B. D. Holcomb.

Western Christian Advocate office,
Cincinnati, Feb., 1855.

Remarks.—We reply with pleasure to our correspondent. The book which we shall first recommend is the *Farmers' Encyclopedia*, adapted to the United States by Gouverneur Emerson. It is a royal octavo of some 1200 pages, and treats both in a scientific and practical manner, of nearly all the topics coming under the farmer's care. Then *Elements of Agricultural Chemistry and Geology*, by James F. W. Johnston; *Davy's Agricultural Chemistry; Farmer's Companion*, by Buell; *Downing's Fruits and Fruit Trees; American Muck Book*, by D. J. Browne; *Harris' Insects Injurious to Vegetation; Youatt and Martin on Cattle*, by Stevens; and *Farm Implements*, by J. J. Thomas.

Begin with these, and as opportunity offers read *Loudon's* works—especially his *Arboretum*—which are a library in themselves, *Downing's*, *Stephens'*, *Lindsley*, *Sinclair's Code*, &c. &c. We can boast now of an elegant agricultural literature, and you will find *pleasure* in perusing these works, as well as profit.

SUDDEN DEATH OF A COW.

Mr. Brown:—I had a fine cow, eight years old, tough and hearty, who was apparently well at nine o'clock at night, and in the morning dead. She lay in her usual position, as though there had been no struggle. On an examination the stomach appeared blistered and highly inflamed, and the blistered part slipt off. There were no other symptoms to describe. Can you or Doct. Dadd throw any light on this case?

Bethel, Vt., 1855. A Young Farmer.

Remarks.—We cannot enlighten you. Will Dr. Dadd?

WHAT PEARS SHALL I SET?

If you could give us in the *Farmer* a list of pears hardy enough for this locality, you would do us a great kindness. I have tried the Bartlett, and several other kinds, but they are not hardy enough; they grow well in the summer, but the next spring every twig that stood above the snow is dead. John H. Currier.

McIndoes Falls, Vt.

Remarks.—The English Jargonelle, Dunmore, Louise Bonne de Jersey, Urbaniste, Seckel, Buerre Diel, Vicar of Winkfield, Winter Nelis and St. Michael, are hardy varieties. These should be on the quince, except the Jargonelle, Dunmore and Seckel, which are best on the pear stock. The Bartlett is a noble pear, and will do well, we think, if grafted on a hardy pear tree.

For the New England Farmer.

PATH-BREAKER.

Mr. Editor:—In these days of *snow*, take two widths of plank (hard wood is the best) 18 inches wide, shape in the form of a harrow (triangle) with an iron to hook the chain—board over the top, *to pile on the boys*, and with one yoke of oxen, you break your own paths and can do much for the villagers who do not pay particular attention to these small matters of comfortable sidewalks. The cost is a mere trifle, and they last for years if kept under cover.

Yours respectfully, H. P.

Brooklyn, New York, Feb. 26, 1855.

Pruning.—Thomas says—"The season for pruning old orchards is late in autumn, or in winter, or at mid-summe; but *not in spring*, when the flow of sap is apt to injure and cause the decay of the *wood at the wounds*."

For the New England Farmer.

A CHINA PEACH.

I noticed in some numbers of the *Horticulturist*, of 1853, some account of a China peach, raised in one of our southern States. It was spoken of as probably or undoubtedly the only tree in this country from such a source.

There are in the grounds adjoining my own some peach trees, imported from Shanghai, in China, several years since. They were rooted in tubs, and the owner of the vessel for whom the captain obtained them, sent them to his natural home in this town. The original trees have not proved good bearers. But other trees budded from them have yielded very good crops. One of my neighbors has had trees in bearing (budded from these) for four or five years. I also have some, which bore last fall for the second time. It is a very large peach, above the usual size, but by no means so large as to prove the truth of the dictum of the captain who imported them, who said that he had seen them in China as large as his head. The skin and flesh is pale; and, without being at all deficient in juice, it is a very meaty peach, the flesh seeming to have more substance than is usual. I consider it a superior peach, much above a medium quality; yet there are others I should prefer if mature at the same time. This, ripening just as the best peaches are leaving us, becomes a superior variety at that time. If you would like, I would be happy to send you a specimen next season. The leaves are subject to the mildew; the fruit has unequal sides, forming a marked ridge around it.

Yours, &c., Lewis S. Hopkins.
Northampton, Feb. 15, 1855.

Remarks.—We should be gratified with a sight and taste of this peach.

For the New England Farmer.

ABOUT DAIRY COWS.

Friend Brown:—I am most happy to notice by your paper of this morning, (March 10th,) that the rappings of the spirit of the "old Oaks cow" have not in the least impaired the wits of the gentleman from Worcester, and although he may not be able to milk as freely as he could before his hand was lame, he certainly writes without any perceptible impediment.

If the gentleman had charged me with *partiality*, instead of *prejudice*, I should at once have owned up—for I must confess, other things being equal, I do like our own, better than I do foreign breeds—whatever description of animals they may be. I am in spirit a native American—though not in the modern use of the term, professed by such. I detest secresy and double-shuffle, wherever it may be found. In truth, I am a plain Yankee, neither more or less.

The gentleman from W. charges me with being unfair. I certainly did not intend to be unfair, either towards himself or his stock. He would represent his pastures as being of an inferior order. I had no suspicion of this. I supposed they were ordinarily very good pastures, only a little shortened by the extraordinary dryness of the season, as were all pastures that came within my observation.

The gentleman refers to the four *hornless*, *ill-looking cows*, that average one and a half pounds of butter each, for a period of forty days from June 1st to July 10th, for which the 1st premium of the Essex Society was awarded. Mr. John Stowe, Jr., of Marblehead, was then the owner of these cows; he can tell all about the quality and weight of their butter, and whatever he may say about it, is worthy of entire confidence.

The gentleman from W. appears to be quite sensitive, as to the use of the term *native*, when applied to animals, as do many other gentlemen of distinguished intelligence. I presume it is not in my power to enlighten him on this topic. A gentleman, so entirely conversant with the best farms in the best county of the commonwealth, nine-tenths of the stock on which are *natives*, and nothing different from *natives*, if he does not know what is meant by the term *native*, I would not presume to instruct him. My idea of the meaning of the term, is the same as that of the great mass of the yeomanry of the commonwealth. I have no patience with gentlemen when they undertake to *mystify this matter*. There is an affectation of learning in so doing, which is not to be commended.

I repeat, sir, that I feel under great obligations to the gentleman from W., for his careful and accurately stated management of his dairy; and am glad to know that his success was mainly to be attributed to the skill and fidelity of his excellent wife. I was quite sure that no bachelor could ever have earned or merited such a premium, as he obtained, and I am equally well pleased to know that our own New England breed of cows (by whatever name they may be called) with the same care and the same feed, are as good (to say the least) as any others.

Essex.

For the New England Farmer.

QUINCES FOR PICKLES.

Sir:—I noticed in one of the late numbers of the *Farmer*, that you say that quinces are used only as a preserve. It is, perhaps, unknown to your readers that they make a *very* agreeable pickle, if boiled in vinegar, with brown sugar, to which are added cloves, cinnamon, &c. Even when they have been unluckily hard frozen, they will answer for this purpose—only less sugar will be then required. They are quartered and pared and the cores cut out. Ten pounds of fruit are boiled, to which add five pounds of sugar and from three to five pints of vinegar, one ounce of whole cinnamon, and half an ounce of whole cloves, and boil down, place in a jar and pour the hot syrup upon it. With many the quince, baked like an apple, is a favorite, adding syrup or molasses and water to the dish in which they are baked. Those fond of a tart baked apple, will probably be pleased with the baked quince, and much prefer it. Yours, &c.,

Lewis S. Hopkins.
Northampton, Feb. 15, 1855.

Measurement of Hay in Bulk.—Multiply the length-breadth and height of the hay into each other, and if the hay is somewhat settled, ten solid yards will weigh a ton. Clover will take eleven to twelve yards to a ton.

For the New England Farmer.

INTERESTING EXPERIMENT WITH PEAR SEEDLINGS.

Having some pear trees which started from seed last spring, I tried in mid-summer the experiment of cutting the tap root of all of them a few inches below the ground, to make them throw out lateral roots, having heard that it was very difficult in our country to raise pear seedlings, because of their being thrown from the ground by the frost, and that this was attributable to the want of lateral roots. I took a rainy morning for my division of the tap root, but, in an hour or two after the operation, the sun came out clear and warm. I may have watered them once or twice subsequently, at evening. In two or three days the leaves began to look like leaf-blight; first the edges, or the edge on one side was discolored, and finally on some all the leaves became entirely black; on others, some leaves were entirely destroyed, while some were but partially affected, or escaped entirely. Out of twelve or fifteen of these seedlings, but about one-half survived. I had cut off the main source of the supply of moisture from the ground, and the leaves *appeared* to have the leaf-blight. Was the affection of the leaves a consequence of the division of the root? (*a.*) It would look so, and if so, is a cessation or essential diminution of a supply of moisture to the roots, the *cause* of leaf-blight to the pear tree? If I remember rightly, it is almost or entirely unknown in the moist climate of England. But if drought at the roots and a rapid exhalation from the leaves under our hot sun is the cause, then we would find the leaf-blight more than usually prevalent in such a summer of uncommon drought as our last. Was it more prevalent last summer than usual? I had no more of it than usual. And are pear trees, with a moist subsoil, less afflicted with the leaf-blight? Yours, &c.,

LEWIS S. HOPKINS.

Northampton, Feb. 15, 1855.

REMARKS.—(*a.*) Pear seedlings are difficult to raise, seldom doing well except upon a soil peculiarly adapted to them. They are found to succeed best on a strong, rich soil, containing peroxide of iron, and which is moist, but not too wet.

To promote the formation of lateral roots, transplant from the seed bed when two or three inches high, and cut off the end of the tap root with a sharp pair of scissors. They should be mulched, to protect them from the action of the sun in summer, and should be protected from the attacks of the cut-worm in the seed bed; the best remedy I have found to be tobacco waste, strewed thickly over the surface of the ground. Ashes and bone dust are the best manures. A partly shaded place is better than the full sun.

AGE OF OYSTERS.—A London oyster-man can tell the age of his flock to a nicety. The age of an oyster is not to be found by looking into its mouth. It bears its years upon its back. Everybody who has handled an oyster shell, must have observed that it seemed as if composed of successive layers or plates overlapping each other. These are technically termed "shoots," and each of them marks a year's growth; so that by counting them, we can determine at a glance the year when the creature came into the world. Up to the time of its maturity, the shoots are regular and successive; but after that time they become irregular, and are piled one above the other, so that the shell becomes more and more thickened and bulky. Judging from the great thickness to which some oyster shells have attained, this mollusc is capable, if left to its natural changes unmolested, of attaining a patriarchal longevity.

For the New England Farmer.

THE WHEEL HOE.

MR. EDITOR:—I have lately become a subscriber for your truly valuable paper, and on the first side I find much to interest, and learn. In a late number, in your remarks on Raising Carrots, you say "the wheel hoe will save one-half the labor of cultivation." Now I have raised from a quarter to a half an acre, yearly, for a few years, with pretty good success; but it requires so much labor to weed them, I almost resolved last weeding time to quit them and try something else, but if I can find an implement that will save one-half the labor of weeding, I think I shall try them again. I wish to inquire of you through the columns of the *Farmer*, how much does the "wheel hoe" cost? Where can it be obtained? How does it operate, &c., by answering the above questions you will greatly oblige me, and I doubt not many of my brother farmers. F. J. S.

Caledonia Co., Vt., Feb. 27, 1855.

REMARKS.—The wheel-hoe costs from $1,50 to $2,00, and may be found at Ruggles & Co.'s. We shall republish a cut of this hoe as soon as we can get a correct sketch engraved.

For the New England Farmer.

ABOUT CHERRIES AND PEARS.

MR. EDITOR:—You will confer a favor by answering the following queries through the columns of the *Farmer*.

1. I have now the *May Duke*, *Black Tartarean*, *Downer's* and *Honey Heart* cherries, and wishing to add to the number of my trees, would it be advisable to get any other varieties, and if so, what varieties?

2. Has the *Early Purple Guigne* sufficient good qualities to entitle it to a place in a collection of a dozen trees?

3. I have the *Madeleine*, *Early Catharine*, *Fulton*, *Bartlett*, *Jackson*, *Golden Beurre of Bilboa*, *Beurre of Aremberg*, and *Vicar of Winkfield* pears, and I propose to procure the *Lawrence*, *Owen*, *Rostiezer* and *Seckel*.

What alterations or additions would you advise me to make to this list, and particularly, is there any variety ripening at the time of the *Early Catharine*, which produces abundant crops and of good quality.

The soil is a rather compact loam, with "hard pan" at an average depth of about two feet, with a moderate descent to the north; it has, however, always borne good crops of pears.

4. What amount of fruit will a well-grown pear tree produce as compared to an apple tree in similar circumstances?

5. Is there any very late keeping apple which comes so near to the Baldwin in productiveness as to make it profitable for extensive culture?

Ashfield, 1855. M. F. Bassett.

Remarks.—1 and 2. In addition to the four varieties named we would recommend the *Napoleon Bigarreau* and *Black Eagle*—the last we consider indispensable; the *Early Purple Guigne* is a good early cherry, and of course apt to be taken by the birds.

3. We should recommend as additions to the list of pears, the *English Jargonelle*, *Beurre Diel*, *Glout Morceau* and *Winter Nelis*.

4. The pear will not compare with the apple for bearing.

5. We consider the *Hunt Russett* to be the best late keeping apple. It is prolific, excellent, and may be kept through the year under favorable circumstances.

SPRING WORK.

Trees.—Make all necessary preparations for transplanting; do not delay it until the trees are swollen, for to remove a tree then, gives it a shock which it will scarcely recover from through the season. Be *generous with the spade*—loosen and pulverize the earth over a liberal breadth, working in a little well decomposed compost. Transplant *early in April*, if the ground is suitable.

Spring Rye.—More profit may be realized from one acre thoroughly plowed, 10 inches deep and well manured, than to skim over two acres of old fields indifferently. A bushel and a half of good seed on the best land will be sufficient, while on the poor, two bushels will be required.

The Peach Crop.—The temperature falls in Connecticut and Massachusetts to 12 and 15 deg. below zero every few years, without injuring the peach crop. In 1834, at Windham, Conn., one morning, on the high hills, the thermometer indicated 18 deg. below, while on the plains and valleys it was 22; yet there were plenty of peaches the following season on the hills, and none in the plains and valleys. A year or two after, the temperature, one windy night, was exactly teversed. The next year there was not a peach on the hills, but a full crop in the valleys; the tree buds were not injured. Who will inform the public where the exact frost-line of the peach is? Another question to the curious is, at what temperature the peach-tree is killed by frost?

☞ The particular attention of the reader is called to the article by Dr. Reynolds, on Reclaiming Swamp Lands.

LADIES' DEPARTMENT.

DOMESTIC RECIPES.

Best Bread.—The best bread is that made of *unbolted wheat flour*. In some cases a small portion of white bread may be desirable, but the brown, after a short time, will be found more palatable, and conducive to a more regular and healthy condition of the system. It has been ascertained that even dogs cannot live over fifty days fed upon fine flour bread and water; when fed upon such as contained the whole or a large portion of the bran, they are found in no respect to suffer.—*Water-Cure Journal.*

To make fine Pancakes fried without Butter or Lard.—Take a pint of cream, and six new-laid eggs; beat them well together; put in a quarter of a pound of sugar, and one nutmeg, or a little beaten mace—which you please, and so much flour as will thicken—almost as much as an ordinary pancake flour batter; your pan must be heated reasonably hot, and wiped with a clean cloth; this done, spread your batter thin over it, and fry.

Indian Muffins.—A pint and a half of yellow Indian meal sifted. A handful of wheat flour. A quarter of a pound of fresh butter. A quart of milk. Four eggs. A very small tea-spoonful of milk. Put the milk into a saucepan. Cut the butter into it. Set it over the fire and warm it until the butter is very soft, but not until it melts. Then take it off, stir it well till all is mixed, and set it away to cool. Beat four eggs very light; and when the milk is cold, stir them into it alternately with the meal, a little at a time of each. Add the salt. Beat the whole very hard after it is all mixed. Then butter some muffin-rings on the inside. Set them in a hot oven, or on a heated griddle; pour some of the batter into each; and bake the muffins well. Send them hot to table, continuing to bake while a fresh supply is wanted. Pull them open with your fingers, and eat them with butter, to which you may add molasses or honey.—*Farm Journal.*

Mode of Making Yeast.—The following mode, which was found very convenient in practice, was stated to us by a notable house-wife. One quart of hops is boiled about three hours with about seven gallons of water; after that the resulting liquid is passed through a cullender on three quarts of Indian meal, or so much that the mixture will be like *batter*. Half a tea-cup of salt is added, and when cooled to new milk warmth, half a pint of yeast. After stirring well, it stands fifteen or twenty hours, and Indian meal added till of the consistency of dough, when cakes, three inches in diameter and half an inch thick, are made from it, and dried on a board by the fire; much heat will destroy the yeast, and if not dried in two or three days, fermentation will proceed so far as to destroy it. These cakes will be good for three months; one of them soaked half an hour in warm, not hot water, will be enough for a large loaf.

☞ When friends come to see you uninvited, do your best to entertain them, but make no apology or comment; it sounds to your guest like a reproach for taking you unawares.

We select the following from a large number of similar notices with which we have been favored from time to time by our cotemporaries:

We improve this opportunity to call the attention of our agricultural friends to the New England Farmer, published in Boston, as one of the most valuable publications of the kind in the United States. There are few farmers so well informed that they might not derive advantages from its perusal, a hundred fold beyond its cost. It is published monthly, each number containing 48 large octavo pages, at only $1.00 a year.—[Hampshire Gazette, Mass.

New England Farmer.—The August number, as usual, is filled with matter of great importance to the farmer. There are no better works reach the home of the agriculturist than this. Its articles are timely, able, and instructive—and its illustrations are fine.—[Telegraph, Penn.

New England Farmer.—The New England Farmer is a first rate monthly, devoted to agriculture, horticulture, and their kindred arts and sciences, which we unhesitatingly recommend to our farmers and reading community. Each number contains about forty pages, and the last two we have read with pleasure, finding them filled with practical, valuable and instructive articles. Several who have examined the numbers we have received were much pleased with them.—[Monmouth Inquirer, N. J.

New England Farmer.—This is one of the best agricultural papers the farmer can find. It is well adapted to the wants of the farmers in New England, and should have an extensive circulation among them.—[Greenfield Republican, Mass.

☞ We omitted last week to credit the article headed "Farm Work for September," as we should have done, to the best Agricultural paper in *New* England, the N. E. Farmer. It was so good we supposed all would know where it came from.—[Amherst Cabinet, N. H.

The New England Farmer, a monthly devoted exclusively to Agriculture and kindred subjects, making a fine volume of 576 pages a year. The Farmer is edited by Simon Brown, assisted by Frederick Holbrook and Henry F. French, published by Joel Nourse, Quincy Hall, Boston, at $1.00 a year in advance. The Farmer continues to maintain its high and well-earned reputation.—[Ohio Farmer.

New England Farmer.—We advise our agricultural friends who are in want of a work devoted exclusively to their interests, without being mixed up with the notions of old fogies on politics, to subscribe for the New England Farmer, which is published in a pamphlet form, monthly, at $1.00 per annum. Joel Nourse, publisher, Quincy Hall, Boston.—[Plymouth Rock, Mass.

☞ The excellent article on our last page for "Farmers' Work in March," is from the New England Farmer, one of the most valuable and sterling papers to be found in this country, always filled with valuable information, and a paper from which we can always clip much interesting matter.—[Woburn Journal, Mass.

New England Farmer.—The April number of this useful agricultural work has been received, and merits the praises that have been so universally bestowed upon it. It is, in fact, the cheapest agricultural work in the Union. It is published monthly at Boston on the first of each month, in book form—devoted, *exclusively*, to agriculture, horticulture, and their kindred arts and sciences. Each number contains 48 pages, making at the end of the year, a neat volume of 576 octavo pages. Terms $1 per annum in advance. All orders and letters should be addressed to Joel Nourse, Quincy Hall, South Market Street, Boston, Mass.—[Norristown Register, Penn.

☞ The New England Farmer, for March, has come to hand in good season, and this number fully sustains the excellence of those preceding it. It presents a valuable index for the farmer's use, besides a great variety of valuable miscellaneous reading, which cannot fail to interest those pursuing other vocations than the tilling of the soil.—[Statesman, Vt.

☞ The New England Farmer, from the columns of which, our readers have seen many good articles in the Mail, is one of the best agricultural papers, for the common farmer, that comes to our table. It has recently been much improved, and in addition to the weekly is now issued monthly, at $1 a year. Mr. Simon Brown, the editor, successor to the late Mr. Cole, seems to have caught the full idea of the actual wants of the farmer.—[Eastern Mail, Maine.

☞ In the paper of this week will be found a finely written article upon "The Farm in November," which is the leading article of the November number of the New England Farmer, which has just come to hand.

Those of our farmers who do not subscribe for this work, we recommend to do so. It is among the best monthly publications going.—[Suffolk Gazette, N. Y.

New England Farmer.—This is another good agricultural paper, and we take pleasure in recommending it to the public. It is devoted to agriculture, horticulture, and their kindred arts and sciences, embellished with numerous engravings. The matter is mostly original, and from the best agricultural writers of the day.—[Expositor, Mich.

New England Farmer.—This excellent agricultural periodical, under the editorial charge of Simon Brown, Esq., assisted by Frederick Holbrook and Henry F. French, is a work which recommends itself to the attention of every farmer. This monthly cannot fail of a good support under its present management, and we hope it will meet with the success it so much deserves.—[Dover Gazette, N. H.

New England Farmer.—This valuable weekly paper, chiefly devoted, as its name indicates, to practical farming intelligence, has no superior in the excellence of its agricultural essays, and in the general tone of its news and miscellaneous departments. The two selections on our outside of last week, under the caption of "Farm Work for May," and the "Garden," should have been credited to the New England Farmer, and are fair samples of the ability and good taste exhibited in the management of the paper. It is edited by Simon Brown, Esq., formerly of Newport, in this State. Many of its best correspondents are also from New Hampshire.—[Manchester (N. H.) Democrat.

New England Farmer.—We are happy to renew our salutations of cordial brotherhood with this excellent agricultural and miscellaneous newspaper, with its first issue for the new year. And there is no paper out of the State that furnishes more reliable and valuable information, and we are always happy to see it on the farmer's table with our own sheet. The New England Farmer is edited by Simon Brown, Esq., with Hon. Frederick Holbrook and Henry F. French, Esq., as associates, (a strong team,) and is published by Joel Nourse, Boston, at $2.00 per annum.—[Granite Farmer, N. H.

☞ We exchange with a goodly number of Agricultural papers, most of them of established merit and usefulness; but among them all we peruse the columns of none with more interest and comfort than those of the New England Farmer. There is a good deal of old-fashioned home fire-side feeling infused into its language, which reminds us of the capacious hearth and glowing winter fires of long ago, while in the elements of progression and practical usefulness it ranks among the first journals in the land.—[Carlisle (Pa.) Herald.

New England Farmer.—An Independent Journal, devoted to Agriculture and General Intelligence. Terms $2 per annum in advance—Joel Nourse proprietor, Boston, Mass.

This is the best paper for a farmer we have on our exchange list, and most cordially do we recommend it. To the intelligent, enterprising young man, just beginning the world, this paper may be the means of saving fifty dollars a year, independent of the pleasure derived from reading it. To such we say, don't fail to send your two dollars for the New England Farmer.—[Ellsworth (Me.) Herald.

☞ Every farmer in Vermont, besides patronizing the papers of his own State and vicinity, should take the New England Farmer. We have known it from its "youth up," and know it to be a first-rate paper; always filled with choice and important matter for the man who would cultivate his farm and his mind at one and the same time, and do it in the best manner. We shall treat our readers to many articles from its columns.—[Vermont Watchman and Journal.

New England Farmer.—We consider this broad and beautiful sheet among the best, if not the very best family journal in the United States. The bold and manly tone evinced by its conductors upon all questions of State and National polity, renders its opinions worth adopting, whilst as a newspaper, its columns afford as abundant a supply as is needed by any family. In the immediate vicinity of its publication, its markets and local news must be particularly valuable, but the world-wide importance of its agricultural statistics is what will specially recommend it to our readers. The price is only $2 per annum, which, for a paper of its size, style of print, and manner of getting up, is exceedingly low.—[Louisville (Ky.) New Era.

☞ The New England Farmer, we would remind our readers, is an excellent agricultural paper, and now is just about the time to make the editor a "New Year's Gift," of renewed subscriptions and some new subscribers.—[Greenfield (Mass.) Republic.

☞ We know of no better agricultural paper in the Union, than the New England Farmer, published at Boston. It should be in the hands of every farmer who would know *how* to farm.—[Banner of the Union, Phila.

New England Farmer.—We call attention to the advertisement of the New England Farmer. This is probably the best weekly agricultural paper in New England. Its editor, Simon Brown, Esq., is a practical farmer, and its other writers are men who write from practical knowledge of the great branch of industry to which the paper is mainly devoted. Those of our people who wish for an agricultural paper published out of the State, will not find a better one.—[Concord (N. H.) Patriot.

New England Farmer.—This is one of the best agricultural journals in this country, and should be in the hands of every person engaged or interested in any one of the various branches of agriculture.—[Exeter (N. H.) News-Letter.

WM. JAY BAKER, ENGRAVER ON WOOD,

22 and 23 Scollay's Building, entrance on Tremont Row, ... Boston.

TERMS.....$1.00 A YEAR.

THE

NEW ENGLAND FARMER:

A MONTHLY

AGRICULTURAL JOURNAL,

FOR THE FARM AND GARDEN.

SIMON BROWN, EDITOR.
FREDERIC HOLBROOK, OF VERMONT, HENRY F. FRENCH, OF NEW HAMPSHIRE,
ASSOCIATE EDITORS.

Without encouragement of AGRICULTURE, and thereby increasing the number of its people, any country, however blessed by nature, must continue poor.—SWIFT.

Vol. VII. **MAY, 1855.** **No. 5.**

BOSTON:
JOEL NOURSE, PUBLISHER,
QUINCY HALL.

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Postage.—The Postage on the Monthly Farmer to Subscribers, is now twelve cents a year, to be paid quarterly or yearly, in advance, at the office where it is received.

DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

VOL. VII. BOSTON, MAY, 1855. NO. 5.

JOEL NOURSE, Proprietor,
Office....Quincy Hall.

SIMON BROWN, EDITOR.

FRED'K HOLBROOK, } Associate
HENRY F. FRENCH, } Editors.

CALENDAR FOR MAY.

"The blossomed Orchard and the Vine
Have too their charms for me;
The sweet Briar, and the Eglantine,
Again I joy to see.
These are the beauties of the Spring;
And while it doth remain,
Let all the graces dance and sing,
Till Winter come again."

MAY—of all the months in the year—is oftenest spoken of with enthusiasm, sometimes with passionate joy. It has a revivifying influence upon all nature, animate and inanimate; on the trees whose forms have long appeared lifeless, the sap starts, buds and blossoms expand, and flowers spread their delicate petals to the softly-kissing winds of the south; the earth is rapidly verdure-covered, animals gambol, birds sing and insects hum about, intent on the purposes of their busy little life. There is reanimation in all things; the air is soft and grateful, the springing grass looks cheerful and the brooks appear glad as they skip along. Man and the lower world are sympathetic,—a grand symphony of harmonious feeling pervades all things.

Is it a wonder, then, that May is extolled? The *sick* praise it because its breath is soft and bears upon it the perfume of the Heart's-ease, Crown-imperial, Lily of the Valley and Apple-blossoms; the *lovers* eulogize it because every thing is so gladsome about them and in unison with themselves! The *Farmer* utters his daily heart-felt panegyric for southern breezes, genial suns and fructifying rains; for springing corn, and grass and grain. Then

Hail, bounteous *May!* that dost inspire
Mirth and youth and warm desire;
Woods and groves are of thy dressing;
Hill and dale doth boast thy blessing.

So said Master Shakspeare, and he understood the secret workings of the human heart pretty well.

But there is another aspect for May. It is not scorching summer, but stands between that and blustering winter, hangs out vernal suns, and lets us and the trees and grass and flowers, gradually down into the roasting season, acclimated and prepared for it. "Were a summer temperature immediately to succeed the cold of winter, many of our plants would be greatly injured, if not totally destroyed. Their delicate vessels and cells would burst by a too sudden expansion, and the bud, prematurely thrust forth into the light and heat of day, would wither and fall off, or remain an abortive excrescence on its parent stem. We should also be deprived of the beauty and interest attached to the gradual development of leaf and flower, were the great annual transition in the vegetable world effected instantaneously." Now, under the beautiful arrangement which exists, as the season advances, the temperature increases, and plant after plant, according to the sensibility of its buds, sends forth its tender shoots and leaves, in beautiful succession, till every field and garden and grove is teeming with beauty and perfume.

May, on the farm, is crowded with important duties, and unless they are thoroughly discharged, will show a neglect through all the summer operations. "Drive your business, and not let your business drive you," is a good old adage, and has more force than many are disposed to allow it. Always to be able to hoe a crop, for instance, at the moment it needs it, is a matter of considerable importance, saves labor and time, and undoubtedly increases the crop beyond what it would have been had the weeds luxuriated a few days longer. This is especially the case in harvesting the grain and grass crops—a delay of a day or two sometimes sadly affecting the quality of either. It is just as important for the farmer to be prompt and improve the favorable moment in his affairs, as it is for the smith to "strike while the iron is hot," the mariner to spread his sails to the favorable breeze, or the merchant to purchase when goods are low. When plans are judiciously laid, so that each particular duty may be performed at the proper time, the work of the farm will go on pleasantly and profitably, and afford a satisfaction unknown to those who labor without system, and seldom employ the head in conducting their affairs.

Trees.—If it was not done in April, make an experiment with one old apple tree; graft, if it needs it; dig, manure and pulverize the soil about it; if mossy and bark-bound, scrape it, and wash it with soap and water; do this twice the coming summer, and once each succeeding spring until the grafts come into bearing, keeping an account of expenses. This will test the matter, whether it is best to work over old trees. Wash your trees with soap-suds if not already done this spring.

Grafting.—It is better done in April or early in May before hot suns prevail. Where what are called suckers come after the tree is grafted, do not cut them off until October—then cut off about half their length and allow them to grow the next year. Instead of diminishing, they will increase the growth of the young grafts, as their leaves will elaborate the sap and keep up a healthly action of the tree.

Planting Corn.—Plow deep, spread the manure liberally and cultivate it in three or four inches deep, pulverize thoroughly, and then if you desire to try specific manure, add a little superphosphate, bone dust, or guano to the hill, always remembering that the guano must not come in contact with the young germs of the corn. This will give it an early start, and get the ground covered and the plants ready for the hot suns of July.

Plowing.—All crops—even the grass crops—depend greatly upon the manner in which this work has been done. Deep plowing is an antidote against drought. A light porous soil admits the air—the air is loaded with moisture, penetrates the light soil until it gets down where it is cool, and there the moisture is condensed, taken up by the light particles of earth, and held in reserve for the roots of the plants. So if you plow deep and pulverize well, there is a perpetual watering going on, be the surface ever so dry.

Garden Vegetables.—Put in seeds for garden vegetables early, and in a favorable spot. They will cover the table with palatable and wholesome edibles before the summer is over.

Garden Fruits.—Add a few choice currants, raspberries, &c.

Early Corn.—Sprout it on a sod, transplant sod and all, and you gain a week or two.

☞ The people of Hoboken, opposite New York, have decided in favor of being incorporated as a city.

MIDDLESEX COUNTY AGRICULTURAL PREMIUMS.

Show at Concord, Sept. 26, 1855.

STOCK.—CLASS 1.—BULLS.

For the best native or mixed Bull	$10,00
the second best	8,00
the third best	6,00
the fourth best	5,00
the best Ayrshire Bull	8,00
the second best	5,00
the best Devon Bull	8,00
the second best	5,00
the best Alderney Bull	8,00
the second best	5,00
the best Durham Bull	8,00
the second best	5,00
the best Bull Calf of any breed under one year old	6,00
the second best	5,00

CLASS 2.—WORKING OXEN.

For the best yoke of Working Oxen	$10,00
the second best	8,00
the third best	7,00
the fourth best	5,00

CLASS 3.—STEERS.

For the best three year old Steers,	$7,00
the second best	5,00
the best two year old Steers	5,00

CLASS 4.—MILCH COWS.

For the best Milch Cow, native breed	$10,00
the second best	8,00
the third best	6,00
the best Ayrshire Cow	8,00
the second best	5,00
the best Devon Cow	8,00
the second best	5,00
the best Alderney Cow	10,00
the second best	5,00
the best Durham Cow	8,00
the second best	5,00

CLASS 5.—HEIFERS.

For the best Milch Heifer, under three years old	$7,00
the second best	6,00
the third best	5,00
the best two year old Heifer	7,00
the second best	6,00
the third best	5,00
the best yearling Heifer	5,00
the best Heifer Calf	5,00

CLASS 6.—FAT CATTLE.

For the best yoke of Fat Oxen	10,00
the second best	8,00
the third best	6,00
the fourth best	5,00
the best fat Cow	6,00

CLASS 7.—SWINE.

For the best Boar	$6,00
the second best	5,00
the best breeding Sow	6,00
the second best	5,00
the best Pigs, not less than three in number, from four to eight months old	5,00
the best porker, of any age	5,00
the second best	2,00

CLASS 8.—HORSES.

For the best Stud Horse	$10,00
the second best	5,00
the best breeding Mare	8,00
the second best	5,00
the best five year old Colt, broken to harness	5,00
the best four year old Colt, broken to harness	5,00
the best three year old Colt, broken to harness	5,00
the best two year old Colt	5,00
the best yearling Colt	5,00

CLASS 9.—POULTRY.

For the best live Turkeys, not less than 5 in number	$3,00
the second best	2,00
the best live Geese, not less than 5 in number	3,00
the second best	2,00
the best live barn-yard Fowls, not less than 5 in number	5,00
the best show of any Fowls	3,00
the second best	2,00

☞ Mildew stains are very difficult to remove from linen. The most effectual way is to rub soap on the spots, then chalk, and bleach the garment in the hot sun.

For the New England Farmer.

CHOICE AND CULTURE OF APPLE TREES.

Messrs. Editors:—As the season is fast approaching when most people purchase their trees for transplanting, I venture to make a few statements relative to my theories and practice in the above line.

Much credit is due to many enterprising individuals, who have subjected themselves to great labor and expense in order to furnish the public with a supply of good trees; and, whilst this just meed of praise is cheerfully bestowed where it is deserved, no false delicacy will make me forbear to give vent to my feelings of contempt and indignation towards those nursery-men who—not only in defiance of all law, both of God and man, but in direct opposition to their own pecuniary interests—have practised the grossest impositions on the ignorant and unwary. Justice, however, demands it should be concluded that, in many instances, where the fault has been charged to the nursery-man, it really belongs to the one who had the charge of setting out and subsequent care of the trees.

Much as I admire a good nursery, with its clean and well-cultivated rows, candor and truth compels me to say that it is not the proper place to look for the best trees. First, because they generally stand much too thick; second, because their trunks have been entirely sheltered from the sun, to which they must be inevitably, and, in too many instances, fatally exposed; third, because the soil in which they are thus far reared, is often richer than that to which they are transplanted can possibly be made. If it were possible so to do by statute law, I would not lessen the number of nurseries, but would rather increase them. But if the process of depletion was to be applied in accordance with my views, it would be in the number of trees contained in a row, which should be not more than fifty per cent. of the number usually allowed to stand. This statement is not intended to lessen the profits of those engaged in this branch of business, but rather to enhance them, as it an opinion, founded on observation and experience, that one dollar is not a high price for a good sized, thrifty apple tree.

But how shall I be able to select a good tree, and how shall I test the correctness of your diatribe against thick-set nurseries? says the inquirer of little experience in this matter.

In regard to the selection of a good tree, let the trunk be of as pyramidial form as possible, the bark smooth and of a dark green color, the top being well spread and divided into not less than three branches. Examine the twigs of the last year's growth, to see if they are not only of proper length, but of good circumference, with a good full bud at the top, and, all other things being right, it is of but little consequence whether the body is straight or crooked, although my preferences are in favor of the crooked.

As to the propriety of purchasing a tree from a thick-set nursery, common sense teaches that it is impossible for it to have a quantum sufficit of roots, and those must possess but a feeble nature, and who will answer for its trunk surviving the heat of such a sun as that of 1854? It would be the height of folly to hope for such a result, for, if the tree should not literally die, yet the sap vessels would be so hardened and cramped by the heat, as to render it impossible for the sap to flow in sufficient quantities to give the top its needed support; consequently, the limbs become stinted, and fail of having that healthy appearance which so easily distinguishes a well cultivated tree.

The sap which is thus obstructed, like a water-course must find outlet somewhere, which it accomplishes by sending out numerous shoots at the bottom of the tree, sometimes from below the surface of the ground, which with me, in many instances, it is impossible to kill by frequent cutting, as the more I perform this operation, the more is their name legion. To more fully substantiate the correctness of this theory, let us follow nature in her training of the "wild apple tree of the wood."

First, the seed of the apple germinates and shows itself two or three feet above the ground before the cattle think it worthy of their attention to browse, when, for a number of years, a kind of running contest is kept up between them as to who shall obtain the mastery, which generally results in the tree, shrub-like, increasing in width to such a degree that it is impossible for its foe to reach the shoot, which is now ascending from the centre, and which soon forms a respectable top. The owner, making the discovery that it will grow in spite of beast's browsing and man's neglect, in the course of a few years cuts away the now useless shrubs and sprouts on and around its body, and finds that he has a tree as hardy as the most sturdy oak, with which a tree from a crowded nursery bear about as favorable comparison to as would a Milk street clerk with a down-east lumber-man.

A tree whose body can always be protected from the rays of the sun, will invariably be much more thrifty and prolific than one otherwise exposed. I would recommend to those who are about setting out trees, to let them incline to the southwest about two degrees, from a perpendicular position, as a protection to their bodies from the direct rays of the sun. In ten years the difference in perpendicular appearance will not be perceptible.

Should any suckers come out on the bodies of trees newly transplanted, cherish them with all possible care, as where two or more are allowed to grow up and down the trunk, I have never known it to perish by sun-blight. The second spring these may be headed in one-half, and the third entirely removed. Excepting this for the first four or five years, if you are tempted to use your jack-knife about them, throw it into the river immediately, that you may be delivered from evil. Pro Bono Publico.

N. Bridgewater, Feb. 3, 1855.

Preserving Flour and Meal.—The patented plan of Thomas Pearsall, of Hooper's Valley, N. Y., for preserving flour, meal and grain, from heating and souring, by having an open pipe running through the centre of a barrel of flour and meal, or a number of such tubes in bins of grain, we have tested and found to be an excellent invention. A barrel of Indian corn meal put up in May last, with one of his refrigerating tubes, is now as sweet as it was on the day it was packed.

This improvement must lead to a great saving to our country, as it is calculated that no less than $5,000,000 is lost annually by the souring of flour and the heating of grain in piles,—much, if not all, of which may be saved by the application of this invention, which is neither complex nor expensive, but simple and cheap. A barrel of corn meal, packed in one of Pearsall's patent tubular barrels, arrived in this city on the 7th of this month from Louisville. It was put up in July, and shipped to New Orleans, was kept several weeks in the hold of a steamboat, and afterwards housed in a warehouse until about the 1st of December, and yet is now perfectly sweet.

Scientific American.

For the New England Farmer.

THOUGHTS ON CLIMATE.

BY HENRY F. FRENCH.

It is strange to think how much we pay for the privilege of living in a cold climate. The hay crop of New England, in 1850, was about three-and-a-half millions of tons, and was worth, when stored for use, about thirty-five millions of dollars. All this, with a trifling deduction for what was exported, was fed out to our cattle, sheep and horses, to sustain them during the winter months. In the Southern part of our country, no such crop is raised, for it is not needed. Vast droves of cattle find abundant food, summer and winter, in the woods and on the prairies, with no care from man. Thus we pay in New England, for the privilege of keeping our very cattle in a cold climate, thirty-five millions of dollars. And this is by no means all. We feed out to them a vast amount of grain. We build for them expensive barns and stables, a luxury which Southern animals neither enjoy, nor have occasion for. They are far more comfortable out of doors, under a warm sky.

We expend a great amount of labor and time in feeding out three-and-a-half million tons of hay, a fork-full at a time, each winter.

Again, there were in New England, by the census of 1850, a few more than a half-million of families, occupying nearly half-a-million of dwellings. I think it would be a fair estimate, that the annual average cost of keeping up every dwelling to the necessary point of comfort in New England, above the cost in the Southern States, on account of cold merely, is thirty dollars, or in all fifteen millions of dollars. To this, add for the extra fuel the like amount of fifteen millions, and we have already, for merely hay for our cattle, and additional shelter and warmth for our families, a tax of sixty-five million of dollars a year, for the luxury of cold weather.

But again, they say the dog-day costume of a dandy in New Orleans is, a clean dickey and a pair of spurs! We must not forget the matter of clothing. What additional clothing is really necessary in New England beyond what a Southern clime requires? We will call it the very small amount of thirty dollars for each family of about five persons, and this gives us fifteen millions more, making eighty millions a year in all. Now when we consider all this, and the disadvantages under which farmers labor, at the North, as to performing their labor—how we are hurried and driven to do our fencing, plowing and planting in a very few days, while no farther South than Maryland the plow runs every month in the year—it is enough to make us pause and consider, whether, indeed, our lines have fallen in pleasant places, and whether we have a goodly heritage.

It is true, we do pay, in New England, a tax, an annual tax, equal to one hundred millions of dollars, for the additional food, shelter and fuel necessary for subsistence in a cold climate. How much additional labor we annually perform to bring out from a hard and sterile soil our various crops, beyond what they would require to be raised by the same skill and thrift, from the deep and fertile valleys of the South and West, no man would dare to estimate, and the wonder, only, to a Southern man who visits New England, is, that we undertake to cultivate such land at all.

A hundred millions of dollars a year is a large sum to pay for *sunshine* merely—for what, in other words, in another climate, the warmth of the sun would render unnecessary.

But, there is a law of compensation running through all nature. If we travel towards the South, in our own country, as we leave New England, we see as we go farther, less and less of the indications of comfort and refinement. The house is less and less like *a Home*. As the climate allows the members of the family more freedom abroad, less is thought of the internal convenience and of the outward adornment of the dwelling. Living apart, and not in villages, there are less advantages for education and social intercourse.

Even in Old Virginia, in 1850, there were by the census, seventy-seven thousand free white native adults that could not read or write! No wonder one of her politicians recently expressed great surprise at a recent proposition in the Massachusetts Legislature, to limit the right of voting to citizens who can read and write!

The lavish expenditure of human labor strikes every New England man who travels Southward. That human toil is to be saved, seems never to have been thought of. Where the man himself must do the work, the head will do its part, and save the hands; but where the head of one directs the hands of others, the labor is never skilfully applied.

Slavery accounts for many of the facts to which we refer. Slave labor produces less than any other, and where the slave exists the master never works, while in New England every man labors with his own hands, and is proud to do so.

Yet, back of these considerations, as all history shows us, there is a law of compensation as to climate which seems universal. A cold climate is most favorable to the development of an active and energetic character. This is, after all, the grand secret of the whole matter. The New England youth sees before him a rugged country, of forest-covered hills, cut through by rushing streams, with the winter snows drifting deep about them. But he feels the power within him to fell the forest, to dam the river, to break the snow-paths—to build mills, to grade the hills and valleys for railways. Everything gives way before an energy and a will of which he, whose cheek is fanned by a Southern breeze in his youth, knows nothing.

Often the Northern man, trained to active life at home, finds himself, by a short residence at the South, enervated and weakened by the climate, and ceases to wonder at the different habits of the people.

We may speculate and theorize as we will, it is true at this very hour, that the sun in his whole course around the earth does not now search out a people of the same number occupying a like amount of territory, so well supplied with the neccessaries of life, so well educated, so moral, so free and so happy, as those of New England.

What we might be with a warm and genial climate and a mellow soil we cannot tell. What we are, with the rough north winds, and our rocky hills, and a free sky bending over us, let us consider well and be thankful.

For the New England Farmer.

POTATOES.

The crop of potatoes in Massachusetts, and probably in New England generally, was uncommonly fine last year, and altogether the most profitable crop raised. Of the Black Chenangoes, which I have raised for more than ten years past, without any rot in a single case, I last year obtained 320 bushels to the acre. They are now worth at my door 65 cts. per bushel—320 × 65 =$208,30. This on land just broken up, and with a moderate quantity of stable manure, say 25 cart-loads to an acre, plowed in, gives a nett profit greater by far than any I know of in ordinary agriculture.

Of the Jenny Lind potatoes, of which kind I planted only 8 square rods, I raised 24 bushels, or at the rate of 480 bushels to the acre—worth now 62½ cts. per bushel, equal to $300 to the acre.

This last is a huge, coarse potato, but well worth raising, owing to its wonderful productiveness; they are used for table purposes by many, being generally a little cheaper than other kinds, and pretty good eating late in the season. The Black Chenangoes seem to improve every succeeding year, and are now in this neighborhood esteemed one of the best kinds for cooking, and owing to the fact that they never suffer from rot, are more cultivated, I think, than any other kind.

Amasa Walker.

North Brookfield, March, 1855.

SOULS, NOT STATIONS.

Who shall judge a man from manners?
 Who shall know him by his dress?
Paupers may be fit for princes,
 Princes fit for something less.
Crumpled shirt and dirty jacket
 May beclothe the golden ore
Of the deepest thoughts and feelings—
 Satin vests could do no more.
There are springs of crystal nectar
 Ever welling out of stone;
There are purple buds and golden
 Hidden, crushed, and overgrown.
God, who counts by souls, not dresses,
 Loves and prospers you and me,
While he values thrones, the highest,
 But as pebbles in the sea.

Man, upraised above his fellows—
 Oft forgets his fellows then;
Masters—rulers—lords remember
 That your meanest kinds are men!
Men by labor; men by feeling,
 Men by thought and men by fame,
Claiming equal rights to sunshine
 In a man's ennobling name.
There are foam-embroidered oceans,
 There are little weed-clad rills,
There are feeble inch-high saplings,
 There are cedars on the hill;
But God, who counts by souls, not stations,
 Loves and prospers you and me;
For to Him all vain distinctions
 Are as pebbles in the sea.

Toiling hands alone are builders
 Of a nation's wealth and fame;
Titled laziness is pensioned,
 Fed and fattened on the same,
By the sweat of others' foreheads,
 Living only to rejoice,
While the poor man's outraged freedom
 Vainly lifteth up its voice.
But truth and justice are eternal,
 Born with loveliness and light;
And sunset's wrongs should never prosper
 While there is a sunny right;
And God, whose world-heard voice is singing
 Boundless love to you and me,
Will sink oppression with its titles,
 As the pebbles in the sea.

Sheep.—Lawrence Smith, of Middlefield, has been testing the respective merits of the Merino and Oxfordshire sheep, and finds that the latter are at the same time the most productive and the least expensive; they are also very prolific, usually giving birth to twins, and Mr. Smith has discovered that while the receipts on ten Merinos amounted to $32, the profits on nine Oxfordshires was $60,90. He also states that the lamb of the latter species often attain the weight of 100 lbs. on nothing but the milk afforded by the dam, and says that he has had a seven-month lamb in his flock weighing 104 lbs.—*Springfield Republican.*

For the New England Farmer.

LEGAL PROTECTION TO FRUIT TREES.

"How does it happen that there is so little choice fruit cultivated in this place?" I asked of a resident, last fall. "There are," I continued, "no early or fall apples, no pears, good or bad, very few peaches, no grapes; in fact, though possessing every advantage for the successful cultivation of the very choicest fruits, there is in the place scarcely a thing grown worthy the name of fruit!"

"Well, I can tell you the whole and only cause, and it is all told in one single word, '*Boys!*' Boys, big and little, will manage in spite of you to get the best of your fruit, and most likely break down and destroy your fruit trees; and it is more vexatious and provoking to raise the fruit and have such scamps get it and ruin your trees to boot, than it is to have nothing. I tried it till I got sick of it, and gave it up!"

The manner in which this response was uttered, showed it was no "fancy sketch," but "real life." The man felt what he said.

"But," I replied, "put the law on such fellows!"

"Law!" he repeated, with a scornful leer. "I tried *law* once, to my satisfaction. I found one of the vermin on one of my trees one night, and made a complaint against him before a justice of the peace, who found him guilty, and fined him one dollar and costs! From that time my garden and fruit trees found no peace till the first was ruined and the latter broken down and killed. That's the beauty of the law. If the fellow got into my house, at the same time, and stolen a crab, or had passed a counterfeit one dollar bill on me designedly, he would have fetched up at the States prison! But he could trample down my garden, and break down my fruit trees which were worth beyond price to me, and yet the *law* would fine him only a few dollars, and let him off to run riot in his mischief!"

Well, thinks I to myself, must these things be so? Must we be deprived of the inestimable blessing of having abundance of choice fruit, a blessing great as it is which every man in the commonwealth with only a half-acre lot may enjoy, because, forsooth, vagrant boys, grown and ungrown, will steal it? Nothing conduces more to the enjoyment of the family than abundance of good fruit, and no good can be had with less expense.

If every family which has the means, could have the most tempting fruits of the varieties which flourish here, how greatly would family expenses be reduced! Tens of thousands of dollars that are now sent abroad for supplies and for foreign fruits would be saved at home and added to the *wealth* of the common*wealth*.

It is not the straggling, moss-grown tree that stands on the open common or by the road-side tempting every passer by to "pluck and eat," that needs or merits protection. If a man has no more wit than to expose his treasures openly to the public, thus daring them to violate the law, let him suffer loss under the mild pressure of the present law. But as he who breaks into a house and takes property either day or night is made to feel the rigor of the law, and that justly, so let him who will break into or enter a garden, yard or orchard, and take fruit day or night, be made to feel a like deserved rigor.

Will not our Legislature now in session think of these things? Let them give us a chance to try what virtue there is in something beside turf and grass. Give us something that will bring the "boys" down from the apple-tree and pear-tree too in double quick time, and make them stay down! ICHABOD HOE.

THE GREATEST GRAIN MARKET IN THE WORLD.

In the progress of our city and of the West generally, facts of the most astounding character not unfrequently come upon us unawares, and before we are prepared for them. If any one had asked us, two days ago, which of the great grain depots of the world, (depots at which grain is collected directly from the producer,) was the largest, we probably would have named half a dozen before hitting the right one. If the same question were put to each of our readers, we doubt if any one of the whole number could answer it correctly, nor do we believe that any one of the whole number would credit the correct answer to the query, unless it was sustained by an array of figures, the truth of which could not be questioned. Our attention was called to this subject yesterday, by a gentleman engaged in the grain business in this city, and with his assistance, we have given it a thorough investigation, *the result of which, greatly to our surprise and gratification, establishes the supremacy of* CHICAGO *as a grain port over all other ports of the world!* That there may be no ground for incredulity, we proceed to lay before our readers the statistics, gleaned from authentic sources, which confirm this statement. In the table which follows, we have in all cases reduced flour to its equivalent in wheat, estimating five bushels of the latter to one of the former. The exports from the European ports are an average for a series of years—those of St. Louis for the year 1853, those for Chicago and Milwaukie, for the current year, and those for New York are for the past eleven months of the same year. With these explanations we invite attention to the following table:

	Wheat. bush.	Ind. Corn. bush.	Oats, Rye, Barley.	Total. bush.
Odessa	5,600,000	..	1,440,000	7,040,000
Galatz & Ibrelia	2,400,000	5,600,000	320,000	8,320,000
Dantzig	3,080,000	..	1,328,000	4,406,000
St. Petersburg	..	all kinds	..	7,200,000
Archangel	..	..	..	2,528,000
Riga	..	..	..	4,000,000
St. Louis	3,082,000	918,384	1,081,078	5,081,468
Milwaukie	2,723,574	181,937	841,650	8,747,161
New York	5,802,452	3,627,888	..	9,430,335
Chicago	2,946,922	6,745,588	5,034,216	13,726,728

By comparing the exports of the different places mentioned in the above table, it will be seen that the grain exports of Chicago exceed those of New York by 4,296,393 bushels, those of St. Louis by more than two hundred and fifty per cent., and those of Milwaukie nearly four hundred per cent. Turning to the great granaries of Europe, Chicago nearly doubles St. Petersburg, the largest, and exceeds Galatz and Ibrelia combined 5,406,727 bushels.

Twenty years ago Chicago, as well as most of the country from whence she now draws her immense supplies of breadstuffs, imported both flour and meat for home consumption—*now she is the largest primary grain depot in the world, and she leads all other ports of the world, also, in the quantity and quality of her beef exports!!* We say the largest *primary* grain depot in the world, because it cannot be denied that New York, Liverpool, and some other great commercial centres, receive more breadstuffs than Chicago does in the course of a year, but none of them will compare with her, as we have shown above, in the amount collected from the hands of the producers.

What a practical illustration the above facts afford as to the wonderful, the scarcely credible, progress of the West—what an index it furnishes to the fertility of her soil, and to the industrious and enterprising character of our people—what a prophecy of the destiny that awaits her, when every foot of her long stretches of prairie and her rich vallies shall be reduced to a thoroughly scientific tillage! How long, at this rate, will it be before the centre of population and of wealth will have arrived at the meridian line of our city, and Chicago will have vindicated her right to be recognized as the great commercial metropolis of the United States? We verily believe such is the destiny that awaits her.—*Free Press.*

For the New England Farmer.

ABOUT RAISING STRAWBERRIES.

I find that my neighbors who cultivate strawberries in a very rich piece of garden ground, are so overwhelmed with weeds that they feel compelled to make a new bed every year or two. I have had a bed in the same spot, a part of it for six and a part for five years, and for the past three years have had comparatively very little trouble with the weeds; the hoe and hand, three times in the season, being sufficient, including therein once late in the autumn. I take poorer land and a larger piece—a piece where nothing but grass or strawberries will grow, unless it be weeds, owing mainly to the close proximity of two large elms, whose roots draw largely on the soil, and partly to the soil being a gravelly loam, which has never received much that was enriching. Sometimes I have given the bed a dressing of well-rotted compost, sometimes of leaves in the fall, and sometimes nothing whatever. Last summer it produced 105 quarts of strawberries. The dimensions of the bed I cannot now give, but should suppose it would contain 1000 or 1200 square feet. I would not exchange it for one of half the size, in rich soil, if I had to take the weeds also.

As strawberries do not grow on bushes to accommodate tall people, and as the sun always shines its hottest rays when they ripen, and it is a busy time, I find it advantageous to have a bed sufficiently large to pay for the picking, by allowing my neighbors' children or wives to pick them on shares, giving me one-half, which half is sufficient for my family's present consumption, and for their preserve jars, and for the supply of several quarts to friends.

Yours, &c., LEWIS S. HOPKINS.

Northampton, Feb. 15, 1855.

For the New England Farmer.

DON'T SHOOT THE BIRDS.

MR. EDITOR:—Humanity has the first claim upon our nature. It is the first natural lesson we teach the child; it daily admonishes offending man; it asks your forbearance to do wrong. It says to the Spring birds,—come and sing your joyous songs around my dwelling. If the robin wants your cherries, mount the tree and sing and eat together; so with the beautiful cherry birds; make them your daily guests. If you have but few, plant more trees and invite familiarity. When the fruit is gone, the canker-worm and other insects are their food. Don't shoot these birds!

Build houses for the martin, the wren, the swallow, the blue bird; make the entrance holes small for the wren, and according to size for the other birds. Severe battles are fought for the mastery of the house, but the size of the hole decides who shall occupy it. The swallow and martin are sallying forth for musquitoes and other insects, while the little wren is picking over your fruit trees for bugs and slugs; early and late they regale you with their music. Have you a heart to shoot these birds?

Few know the value of the woodpecker, who constantly seeks for noxious grubs beneath the bark of your orchard trees, and so dexterously does its work. Will you shoot this bird? There is the "golden robin," that hangs her "reticule" on the limb of the graceful elm, ingeniously beyond your reach. She opens her voice with the dawn of the morning in rich notes; she lives on worms and insects; give her thrums to weave her nest. Don't shoot this beautiful bird.

There is the thrush—he perches upon the tree-top and directs you to "plow it," "furrow it," "drop it," and "cover it up," as a true monitor of seed time. Will you shoot him for this good advice? The merry boborlink, the lark that whistles, and that little Bible bird, the "sparrow," that chirps around your door, seeks a few crumbs of bread, and becomes the pet of children. Will you shoot these innocent birds?

The hawk dashes into your brood of chickens with a relish for uncooked poultry, and carries off his victim before the eyes of its terrified, beseeching mother; yet his principal food is *snakes, mice* and *lizzards.* So he is an expert *fisherman,* but there is plenty of fish in the sea for you. Don't shoot the hawk.

The crow pulls up your corn, (soak it in copperas water as a preventive,) but he is your common scavenger, removes carrion and other offal, eats worms, and is highly beneficial in his department. His music—any thing but agreeable to us—is heard by Him "who hears the young ravens when they cry." Will you shoot this raven?

It was my intention to have merely *sketched* these birds, that surround every New England home. Wanton is the hand and wicked the heart that revels in this destructive, indiscriminate sport. Legislation is *too tame* upon this subject; *law* is disregarded; and, as *conventions* are the order of the day, why not have a great *national bird convention* and decide whether, in God's providence, birds were sent to curse or to bless us. Yours, H. POOR.

New York, March 15, 1855.

A MECHANIC'S GARDEN.

We have frequent inquiries for some plan of cultivating small plots of ground such as are owned by multitudes of mechanics, traders and merchants, residing in the suburbs of our cities and villages. We cannot well put down on one, or even on a hundred pages, all the minute directions these men require; we will, however, do what we can to meet their wants. We give them a list of what is one plot of ground of half an acre; and lest the statements may seem rather large we may as well say in advance, that we describe just what we saw on the grounds of Mr. J. H. Smith, at Norwalk, Conn.; and further, that although there is such a variety of trees, fruits, vegetables, &c., there is no confused crowding or jumbling, but every thing seems to be arranged in perfect order. Mr. Smith showed us a large sheet of paper, upon which he has marked out the ground occupied by each tree, plant and plot of vegetables or berries, with the name and variety written down. We should also say that Mr. S. is a laboring mechanic, and that he does nearly all the work required in his garden with his own hands, and out of the usual hours of business.

His lot is about 100 feet wide, and of course extends back some 220 feet to make an acre. The front half contains the house with front and side plots—the house being upon one side of the lot. In this front area, in part covered with grass, are quite a variety of fruit and ornamental trees, including 14 cherry trees of different varieties, 4 standard and 10 dwarf pear trees, 3 dwarf apple trees, 6 peach trees, 8 Norway spruce, 1 white pine, 2 balsam firs, 1 horse chestnut, 1 mountain ash, 4 common whitewash, (in the street outside the fence) 4 common forest dogwood, 2 elms, 5 roses of Sharon, 2 wax plants, 12 varieties of roses, beside flowering currants, sweet-scented shrubs, &c.

Back of this ground commences the garden, which is not, as it should be, separated from it by any fence. In the rear is a cold grapery, 14 by 13 feet, with a grape-border in front, 18 feet wide. The rest of the ground is planted with various fruit trees, and divided into plots containing each of the following: beets, two varieties of onions, cabbages, potatoes, sweet corn, cucumbers, peas, three varieties of beans, gherkins, summer and winter squashes, radishes, two varieties of lettuce, nasturtions, eleven varieties of strawberries, five varieties of raspberries, several vigorous hills of New-Rochelle and white blackberries, two varieties of gooseberries, and three varieties of currants. In addition to these, there are plants of hops, sage, parsley, pie plant (in abundance,) wormwood, and a variety of flowers.

On this ground are three apple trees, three plum trees, 20 peach trees, 75 dwarf pear trees of 42 varieties.

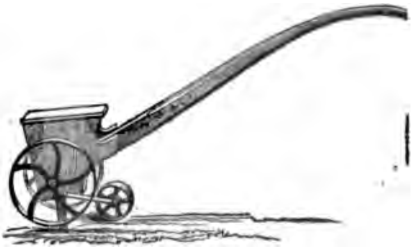
The cold grapery is new, and cost near $400. A plain one for common use may be built for one-half, or one-fourth of this expense. This one has a cistern, with a simple and inexpensive force pump, to which is attached hose and pipe for throwing water into every part. It contains 24 grape vines of 13 varieties.

The various vegetables and fruits are so selected as to furnish a succession for the table during the entire season. In addition to a bountiful supply for his own use, Mr. Smith sells strawberries, blackberries, plants, &c., enough to pay all extra labor employed, and for most of the manure he purchases.

After reading this enumeration, who will say that a single half acre, if rightly managed, is not capable of ministering greatly to one's taste and comfort, as well as profit? What Mr. Smith enjoys from his plot of ground, could not be purchased for many hundreds of dollars, if it could be purchased at all; while, as before stated, the cost is comparatively trifling. The time and labor devoted to these grounds serve as a recreation, rather then a tax upon the labors of the day.—*American Agriculturist.*

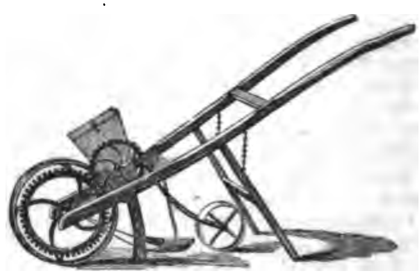
SEED SOWERS.

Now that so many persons engage in the cultivation of the root crops, it is important that all labor-saving machinery that is valuable, should be known and brought into requisition. The first sower here represented we have not used, and suppose that it is intended merely for garden purposes, such as sowing beds. No. 2, and No. 3, we have used many times, and have found the seed to come well after them. But any sower should be carefully tested on a board or floor before going to the garden or field with it.



SEED SOWER No. 1.

This is a small hand drill, designed for the garden. It is a cheap, light, pretty sower, well adapted to the wants of those who cultivate root and vegetable crops on a limited scale, and will sow all such crops, excepting peas and beans. It opens the ground, sows the seed, covers and rolls it at one operation or passing.



SEED SOWER No. 2.

Seed Sower No. 2 is adapted to garden or field sowing, is a size larger than No. 1, and is designed for sowing the same kinds of seeds. The

NGLAND FAR

TERMS.....$1.00 A YEAR.

THE
NEW ENGLAND FARMER:

A MONTHLY

AGRICULTURAL JOURNAL,

FOR THE FARM AND GARDEN.

SIMON BROWN, Editor.

FREDERIC HOLBROOK, OF VERMONT, HENRY F. FRENCH, OF NEW HAMPSHIRE,

ASSOCIATE EDITORS.

Without encouragement of AGRICULTURE, and thereby increasing the number of its people, any country, however blessed by nature, must continue poor. — SWIFT.

Vol. VII. MAY, 1855. No. 5.

BOSTON:
JOEL NOURSE, PUBLISHER,
QUINCY HALL.

ELEVENTH LEGISLATIVE AGRICULTURAL MEETING.

Reported for the New England Farmer,

BY WILLIAM W. HILL.

The *eleventh* Legislative Agricultural Meeting was held in the Representatives' Hall, at the State House, on Tuesday evening, March 27, at 7½ o'clock. The subject for discussion was the same as at the last meeting—*Fruit and Forest Trees.*

Elias Grout, Esq., of Ashland, presided. He remarked that he had been so unexpectedly called upon to preside at the meeting that he had had no opportunity for preparation, and felt that his audience was better able to instruct him than he them. He alluded to the almost wanton destruction of forest trees in New England, and hoped that a reform would be effected in this matter. In cultivating forest trees, he thought they should be allowed to grow as thick as possible, in order to secure handsome trees and good timber, and they should not be trimmed for a number of years. In the West, the woods grow up thick and prune themselves, producing fine tall trees with very few limbs. Coming to the subject of fruit trees, he remarked that it is sometimes asked why the old apple trees are wasted—why not graft them, as by so doing you can save time and trouble and get earlier fruit? The answer is, they last but a few years, and if they have grown up near stone walls, where they could not be cultivated, surrounded by bushes, and have felt the axe or the saw but rarely, the borers are found in them abundantly, and they thus become nests of these destructive insects. When, on the contrary, the trees are in an open lot, it is a good plan to take as much green manure as one horse can draw and place it around the tree, covering it with straw, and allow it to remain a year, after which plow it in. *Ley is often used with injury in washing trees,* but if green manure is mixed with it the ill effects will be prevented. Upon stone fruit trees ley may be used much stronger than upon apple trees. The speaker suggested that a wash of strong lime water, mixed with salt, would have a happy effect on the growth of trees. It is of no use to dig about trees unless a considerable space is dug over. The ground should be deeply plowed about the roots at proper distances. In regard to trimming trees, they should be kept open, giving, say, a border of two to three feet of foliage. It is the practice to allow trees too much foliage, particularly the apple. Fruit that is not sheltered by foliage will ripen quicker. (*a.*) Vigorous shoots that come out after grafting, should be cut down very close, because they will absorb too much of the nutriment of the tree. As regards manuring fruit trees, pears will bear very rich treatment, and a trench should be dug around them and filled up with rich manures. Mr. Grout also alluded to the effect of electricity on trees,—their growth, &c.—and suggested whether a tree could not be made a proper conductor. For instance, attach a wire to the roots of some tree which does not bear very well, and carry it along to the water in some spring.

Mr. Brooks, of Princeton, followed, and remarked that trees, which he pulled up in his pastures and wherever he could find them, would grow much better when transplanted, than those he obtained from nurseries, and were much less infested by the borer. He thought this plan the most judicious in growing fruit trees,—take the natives and plant them, no matter what they are. He had some trees, which he obtained from a nursery, that did not grow any for four or five years. He recommended digging five or six feet around trees, and applying manure and muck, one-half of each, as operating exceedingly well—not only on dry, but moist, clayey lands. In regard to the cultivation of forest trees, he thought it a matter of much practical importance to farmers, for besides beautifying an estate, if planted around the farm buildings, they will break off the cold winds and make them warmer, and also protect them from decay by exposure to the weather. Mr. Brooks doubted the expediency of the suggestions of the Chairman in regard to opening the tops of trees, because the sun will be let in too much, which is a serious evil in our hot, dry climate, inasmuch as the tree will be burnt up and destroyed. He said he had had good success in following up borers with a wire when they are boring into the trees; and as to washing trees, he had used ley of such a strength, that an egg would just sink in it, and he could see no ill effects accruing from it.

Mr. Darling said he had washed his trees with ley, (in the proportion of one pound of potash to a gallon of water) during the month of July, for three successive years, and by that means had got rid of the borers.

Mr. Fisk, of Framingham, remarked that he considered it a good plan, in setting out trees, to set them a little to the south south-west, as they thus receive the rays of the sun less direct.

Mr. Flint remarked that nothing showed the progress of agriculture for the last twenty years better than the attention which is paid to the cultivation of fruit trees, and as an interesting historical fact, remarked that the first fruit trees cultivated in this country were planted on Governor's Island, in Boston harbor, by Gov. Winthrop. Mr. Flint also enforced the necessity of great care in the process of transplanting trees.

Mr. Merriam, of Fitchburg, made a detailed statements in regard to an experiment which he tried with one thousand fruit trees which he obtained from a nursery at Duxbury, close by the sea, and which he transplanted to Fitchburg and set out during the time between the 1st of May and the 3d of June. The only remarkable thing about it, he observed, was that they all lived. He also stated that by driving four or five nails into a tree infested by the borer, just below the surface of the ground, with some perhaps on parts of the tree most affected, he had completely destroyed these worms; and in his opinion, the iron would not injure the fruit in the least.

Mr. **Davenport**, of Mendon, said that in setting out an orchard it was best to apply manure, and dig about the roots. He would mix potash with muck and put it about the roots—the potash being dissolved, and about a pound to six or eight bushels of muck used. To preserve trees from borers, he recommended strips of common tarred paper put around the trees near the ground. Care should be taken in transplanting trees, to have roots spread in all sides. In trimming, the first limb to be cut is the top, in order to get a growth of limbs as near the ground as possible. By this means a better crop of fruit is secured, the tree is less liable to be injured by the wind, the fruit is more easily gathered, and the tree is much less exposed to the effect of a drought, because the ground beneath is sheltered from the sun and retains moisture longer.

Mr. **Farnum**, of Boston, made some well-chosen remarks in regard to the great beauty which ornamental shade trees add to towns and villages, and the enhanced value which estates derive from them. He urged the formation of tree associations in every town in the commonwealth, whose object it shall be to adorn the streets with shade trees. Several such societies already exist.

Mr. **Buckminster**, of the *Ploughman*, followed in some excellent observations in regard to applying the principles of a correct taste to the matter of setting out ornamental trees, as well as the necessity of consulting the adaptation of the tree to the soil where it is to grow. He also referred to the subject of fruit trees, and spoke at length in regard to their management, varieties, &c.

Remarks.—(*a.*) If the tree-grower, everywhere, will always keep in mind a single fact, it will save him from the commission of many errors. *Leaves are the lungs of the tree.* To take away the leaves from a well-balanced tree so that the fruit shall ripen earlier and better, would be like cutting away a portion of the lungs of a well-proportioned boy, so that his body might be more rapidly developed and matured. In this climate, particularly, we need an abundance of leaves. So after cutting away nearly all the small limbs in grafting a tree, nature throws out numerous suckers (as they are very improperly called,) in order to supply leaves which may prepare the sap to carry on the usual work of the tree, that is to go on with its regular habits. Scions themselves will grow better where there are some "suckers," because the natural vigor of the tree is kept up.

For the New England Farmer.

EXPERIMENTS WITH POTATOES.

Mr. Editor:—Hoping to contribute my mite towards the stock of general information on the culture of potatoes, I send you my experience the past summer. I cultivated one patch of potatoes and assisted at two more patches.

No. 1. Had raised potatoes several successive years—was covered slightly with chip, hen and sheep manure, and refuse straw and hay unrotted, land moist, plowed clean about 20th of June, and planted without harrowing; seed, smaller than fit for table use, dropped without any hill, in rows far enough to plow between one way; and from 12 to 16 inches in rows, and covered with hoe. A man may plant one-fourth of an acre in a day in this way; seed were Sand-Lakes; yield two hundred bushels to the acre.

No. 2. Plentifully covered, say 50 loads to acre, with stable manure; buckwheat on the ground year before with manure; plowed clean, harrowed then ridged and hills made with hoe; planted about 1st of June, seed mostly Pink-eyes; small and refuse potatoes; plowed shallow and hoed once, hilled very small and steep; yield 250 bushels to acre. Land was wet, hilly land. Average weight of potatoes from 6 to 8 oz.; some of them weighed 1 lb. 3 oz.

No. 3. Half turf, half sowed to turnips year before, turfy, slightly manured, plowed clean, shallow furrow struck with plow; seed 3½ feet apart; seed very small, dropped in furrows 14 to 16 inches apart, and planted 16th of June at 1½ bushel of plaster to acre; variety of seed, Sand-Lakes; plowed between rows and hoed once in very broad flat hills; yield 130 bushels to the acre. It is my impression, if more plaster had been used a larger crop would have been secured. I submit it to every one, which way of tillage is superior? For myself, on good moist ground, with small-pointed hills and Sand-Lakes for seed, I think I can get more potatoes to the acre, than of the other kind spoken of, although for goodness, I consider Pink-eyes equal, if not superior, to any other variety I am acquainted with. H. Ball.

Bristol, Ct., Feb. 17, 1855.

P. S. If your correspondent "W. D. B." is not yet "posted up," I can inform him that the peanut and popped corn supper referred to was a matter of fact, occurring in New Britain at the "Humphrey House," and was a season of unusual hilarity. H. B.

Where Cork comes from.—Cork is nothing more or less than the bark of evergreen oak, growing principally in Spain, and other countries bordering the Mediterranean; in English gardens it is only a curiosity. When the cork-tree is about fifteen years old, the bark has attained a thickness and quality suitable for manufacturing purposes; and after stripping, a further growth of eight years produces a second crop; and so on at intervals, for ten or twelve crops. The bark is stripped from the tree, in pieces two inches in thickness, of considerable length, and of such width as to retain the curved form of the trunk when it has been stripped. The bark pealer or cutter, makes a slit in the bark perpendicularly from the top of the trunk to the bottom; he makes another incision parallel to it, and at some distance from the former; and two shorter horizontal cuts at the top and bottom. For stripping off the piece thus isolated, he uses a kind of knife with two handles and a curved blade. Sometimes after the cuts have been made, he leaves the tree to throw off the bark by the spontaneous action of the vegetation within the trunk. The detached pieces are soaked in water, and are placed over a fire when nearly dry; they are, in fact, scorched a little on both sides, and acquire a somewhat more compact texture by this scorching. In order to get rid of the curvature, and bring them flat, they are pressed down with weights while yet hot.

SPARE THE BIRDS!

We have received the following circular from the Secretary of the Board of Agriculture, and heartily commend it to the attention of our readers. The wanton and indiscriminate slaughter of birds, at this season of the year, is becoming a serious evil, and if not speedily checked, the consequences will weigh heavily upon the farmers of the commonwealth. The laws of Massachusetts provide that a penalty of one dollar be paid for the destruction of every robin killed between the first day of March and the first day of September; and every person *shooting at or killing any birds* "upon lands not owned or occupied by himself, and without license from the owner or occupant thereof, at any time between the first day of March and the fourth of July, *shall forfeit and pay to the occupant or owner of such lands the sum of ten dollars in addition to the actual damages sustained*, to be recovered by such owner or occupant in an action of trespass." We hope the penalties of the law will be rigorously enforced, and that a stop will be put to this wholesale murder of the joyous, innocent and useful denizens of the woods. The circular alluded to is as follows:

AGRICULTURAL DEPARTMENT,
State House, *Boston*, *March* 26, 1855.

DEAR SIR,—There is a custom, very prevalent in many sections of the State, of regarding the Annual Fast as a holiday, and using it for gunning and shooting. Many thousands of our most useful and beautiful birds, to none more useful than to the farmer, since they destroy innumerable insects injurious to vegetation, are thus sacrificed to the wantonness and cruelty of those who know not what they do. Many painful instances of this came to my knowledge a year ago, when robins, blue-birds, sparrows, and other varieties of birds, which occasionally visit us in the early spring, were shot down without distinction or mercy.

I need not say that apart from the pleasure and delight which these innocent creatures afford, the injury done to the farmer, and to the community at large, by their destruction, is almost incalculable. I take this occasion, therefore, to entreat every farmer, and every man who has any regard for the public good, to use his influence to put a stop to this practice, not only on his own premises, where he has an undisputed right, but throughout his neighborhood and town. Stringent laws already exist against the destruction of birds. Let every man see too it that these laws are rigidly enforced, and rest assured that he will be richly rewarded, not only by the consciousness of an act of mercy in preventing their annual and rapid diminution, but also by the fulness of joy and song with which these sweet messengers of heaven will surround his dwelling, and testify to every passer-by that there is practical Christianity enough in its owner to protect and save them.

I will thank any man, in any section of the State, to inform me of the extent of the violation of the laws of mercy and of the Commonwealth, in order that, if necessary, more effectual measures may be taken to protect the birds, and thus invite them and encourage them to live among us.

Very respectfully, your obedient servant,
CHARLES L. FLINT,
Secretary of the Board of Agriculture.

WHAT VEGETABLES ARE BEST FOR STOCK?

Mr. Dewey is a careful farmer. He watches carefully the effect of his own methods of cultivation, and the value of his crops, and tries to improve every year by his own experience. He cannot fail to be emulous of improvement, for he is a constant and interested reader of the *Granite Farmer*, and some other agricultural papers. A few observations of Mr. D., on the business of the farm, showed so much exact and valuable knowledge, that we have not been satisfied without longer and more minute inquiries on various matters, of which the following is one:

Speaking of raising vegetables for stock, Mr. Dewey took us into his cellar, where was heaped up nearly 200 bushels of beets, the large kind for stock, called the *Mangel Wurzel*, and not far off an ample store of turnips, carrots, potatoes, &c. The beet yields bountifully, and after five years' experience, Mr. D. is satisfied that the *Mangel Wurzel* is by far the best vegetable to raise for stock. To satisfy our curiosity, he allowed us to measure the ground where the beets were grown this year, and ascertain the quantity produced. The piece of ground is about eight rods long by five in width, containing almost one quarter of an acre. The rows run across and were about two and a half feet apart. Every other row was carrots nearly all the way, there being 30 rows of beets and 24 rows of carrots in all. Every four rows of beets filled a 25 bushel cart, giving in all seven loads, good 175 bushels to the quarter acre, (or 700 bushels per acre.) Besides, the 24 rows of carrots gave 1,760 lbs. or about 32 bushels to the same quarter acre, (or 128 bushels or three and a half tons of carrots to the same acre.)

Mr. D. has planted the same piece of land with beets and alternate rows of turnips or carrots for six years, and with constantly increasing success. The land is a clayey loam. Sand is added where it is too heavy. It is plowed as deep as can be conveniently done, say from eight to ten inches, and barn-yard manure put on and plowed in yearly, equal in quantity to the crop taken off. Mr. D. raises his own seed and sows with a machine. He procures different varieties of seed each year, so as to select choice roots for the raising of seed for the following year to improve it.

As to feeding with roots, Mr. D. says they are exceedingly valuable to keep all kinds of stock thriving, healthy and productive. He feeds them to all his stock in winter, and till they go out to grass, once or twice a week, as the store will hold out, giving about a peck at a time to a cow or an ox. He never cuts them except for sheep, and then it is easily done with a sharp shovel in a box for the purpose. Mr. D. has tried and still uses turnips and carrots, and says he would as soon have in his stock five bushels of beets as four bushels of carrots. The beets do much better for sheep than turnips. The lambs are stronger and more hardy. But the beets are especially valuable for cows giving milk. They increase the quantity and excellence of the flavor more than any other vegetable. Turnips always give a bad flavor.

So much for the *Mangel Wurzel.* It may suggest to those who have not turned their attention particularly to the subject, what is one of the secrets of raising choice stock, and also the great profit of cutivating well and manuring highly a small piece of land.—*Granite Farmer.*

For the New England Farmer.

COUNTRY FARMERS AND CITY MECHANICS.

Country people generally are very much mistaken in their impressions as to the average wages and salaries received by city mechanics, clerks, &c. I have often been surprised at the opinions expressed by my country friends on this point, and am somewhat at a loss to account for so general misapprehension. But then so it is in everything. Let twenty men go to the city, to the West, or to California, nineteen shall utterly fail in their expectations of bettering their circumstances, may even die among strangers or by the way-side, or become wretchedly poor, vicious, criminal; one shall succeed as a merchant prince, a rich farmer, or the lucky possessor of a large "pile;"—and in the minds of the people, as on the canvas of the painter, the *nineteen* will be placed far in the back-ground—mere pigmies, if seen at all—while in the fore-ground, and in bold relief, stands out the *twentieth*, large as life and "twice as handsome," filling up the whole picture. Thus it is with wages. The foreman of a shop or overseer of a number of hands, in the city, may get his ten to twenty dollars per week, while the workmen under his direction earn from five to ten dollars, and we shall find, in the country, that everybody has heard of the twenty dollars a week, while not a word has ever reached them of poor five dollars a week.

This misapprehension, inoffensive and harmless of itself, is a very dangerous one to act upon. Under its influence many a young man, becoming disgusted with the "fifty cents a day" that are offered for his hard labor on a farm, resorts to the city with expectations as vague as they are certain to be disappointed. I have watched the progress of many such, and have learned to look upon their position as peculiarly unfortunate and dangerous. From the wages which they regarded as so contemptible in the country, they could lay aside from seventy-five to one hundred and twenty-five dollars a year, as a fund for future independence, while in the city they find it is about as impossible, as it is unfashionable, to lay by anything at all. They become disheartened, reckless, improvident; turn radicals, agrarians, infidels; rail against "corporations," the "money-power," &c., while they make themselves unhappy by brooding over the wrongs of "the working classes."

Upon the subject of the average of wages earned by mechanics in the city, I have lately made some inquiry, but with small success, so far as respects the collection of facts that can be of use in this place. I regret this, because I believe the truth of the case would do more than anything else to satisfy country boys with the farm and its hard work and small profits.

Thus much was written several months ago, when I stopped with the hope of receiving some statements that had been promised by several city establishments. So few and unsatisfactory, however, were the facts obtained, that my article has been delayed, until the question of high or low wages is of little importance in the minds of thousands of city mechanics, compared with that of work or no work.

I will, however, here make one or two brief statements in respect to wages.

Among my personal acquaintances, there are a few who receive from fifteen to twenty dollars a week, at my business, while the journeymen whose bills I have made out for the last seven years—varying in number from one or two to eight or ten a week—have not averaged over six dollars a week.

A shoe-dealer in the city told me his men averaged rather over six dollars a week; and I have been told by men who have worked there, that the shoemakers of Lynn do not average a dollar a day.

A friend of mine, who is engaged in another kind of business, and employs some seventy hands, boasted that his workmen averaged eight dollars a week; which he said was higher than the average at any similar establishment in the city.

Where large wages are paid we often find some reason or qualification, that did not appear at first sight. Carpenters, masons, and some others have little to do in the winter season. Some kinds of business depend on the weather; some are irregular and fluctuating,—now, in a great drive; now, nothing doing. A ship-carpenter told me that five days' work a week was considered a pretty good average for the season, on account of weather, &c. This business, besides, is somewhat unsteady. Before the California demand for shipping, the business was so dull that a neighbor of mine went off chopping wood by the cord one winter, earning seventy-five cents to a dollar and a quarter a day,—boarding himself of course,—while his country friends probably supposed he was earning two dollars and a half or three dollars every day. Such are all the facts and figures that I have to offer upon city wages. I might adduce almost any amount of "estimates" and "guesses" by those who have good opportunities of forming opinions on the subject; but these are so low that I fear to use them, lest my country friends should think I was joking, or suspect me of exaggerating purposely to keep them away from the city, and from competing with us, for the large wages they hear of. It was with some such feelings, I well remember, that I listened some twenty years ago, to a conversation one Saturday night, in a shop in the city of New York, where I had then worked but a few weeks. The "candid opinion," of the foreman was assented to by most of the hands, that, counting all those in the city, who claimed to be journeymen at our trade—the good, bad, and indifferent, at work and out of work,—their whole earnings, one week with another, would not exceed an average of three dollars a head!

But admitting this to be a wild statement; admitting that city mechanics generally obtain living prices for their labor, there still remains one fact to which I ask particular attention, and that is, our liability of being out of work.

"Out of work!" How differently this expression falls upon the ears of country farmers and city mechanics! The one thinks only of a holiday. His crops harvested,—his barn, cellar and woodhouse filled, Out of Work has no terror for him;—only a brief relaxation, a little spell of enjoyment. To the other it is the sum of all evil, the negation of all conveniences and comforts of life His house is hired by the month or quarter, his provisions bought daily or weekly, and his fire-wood but little in advance, can he look Out of Work in the face, and not shudder? Must his little ones starve, or freeze, or be turned into the street? He trembles at the prospect; but it is not he alone that trembles,—the millionaire trembles with him, and well he may, for "hunger breaks through walls."

The riots which have occurred in London and Liverpool, and the hoarse mutterings which have been heard in our cities, should be studied by farmers' boys as a practical commentary upon their ideas of the wages of city mechanics, and of the city as the place for the enjoyment of life.

Long may our country be saved from the disgrace of deeds of violence committed by starving mechanics, and long too may the farmers of our land appreciate the blesings of that independence which saves them from an appeal to the charity and fears of the community for a plate of beans and a bowl of soup. A CITY MECHANIC.

Boston, March, 1855.

WHAT A MECHANIC CAN DO ON A FARM.—You or a correspondent asked, in a former number, "What a man can do in Virginia." I will tell you what I have done, not by way of boasting, but to answer the question, and perhaps encourage others.

I was born and raised in this county, and never had any education more than to read and write. I was bound to a trade when young, and after I was free, lived on a farm, and received $140 a year. When I was twenty-four years old I married, neither my wife nor myself having any property. We are now worth $10,000, obtained without any speculation, and in a straightforward course. I have been married about twenty years, work a farm of 238 acres, which I bought, some years ago, for $22 per acre. Last year I had 24 acres in wheat, yielding 470 bushels—63¼ lbs. to the bushel. I raised 2,500 bushels of corn, which is only worth, at this time, 65 cents per bushel. My sale this year will amount to about $1,800, including pork, grain, hay, &c. I plowed an old and very poor field, last year, for corn, having spread over the ground lightly with straw, and sowing 150 lbs. guano to the acre. I mixed the straw and guano together, and raised 50 bushels of corn to the acre, working the land with a cultivator.—*American Agriculturist.*

HOME.

BY AARON SMITH.

There is a simple little word—
  Oh! ne'er its charm destroy—
Throughout the universe 'tis heard,
  And nowhere but with joy;
There's music in its magic flow
  Wherever we may roam,
The dearest, sweetest sound below;
  That little word is Home.

The soldier in the battle's hum
  May all things else forget;
'Mid bay'nets' flash, and beat of drum,
  His home's remember'd yet.
The exile, doom'd on foreign lands
  Through hopeless years to toil,
May do the despot's stern commands,
  Yet sighs for home the while.

I care not where may be its site,
  Or roof'd with straw or tile,
So that the hearth-fire burns more bright
  Neath woman's radiant smile:
Affection on her fondest wing
  Will to its portals fly,
And hope will far more sweetly sing
  When that blest place is nigh.

It may be fancy, it may be
  Something far nobler—far;
But Love is my divinity,
  And Home my polar star.
Oh! sever not home's sacred ties,
  They are not things of air;
The great, the learned, and the wise,
  All had their training there.

Mark Lane Express, London.

For the New England Farmer.

PLOWS AND STONE.

MR. EDITOR:—I have been a reader of your valuable paper for several years, and with much profit to myself; but among the many able articles it is wont to contain, a reader who resides on the cold, rough hills of Massachusetts, cannot but think how few of them are adapted to a soil hard and stony. Nearly all are inclined to foster the improvement of soils, free from stone and easy of cultivation. This I conclude from the fact that nearly all modern improvements in agricultural instruments are not adapted to the cultivation of stony soil—plows for instance. There is a long list well adapted to soils free from stone; but put these implements in a hard, stony soil, and they are good for nothing; the old plows of forty or fifty years ago will do better work. Hence the cry of gentlemen, riding through the country, that the people, at least a large number of them, obstinately follow the beaten track of their fathers, regardless of modern improvements. Is not this class mostly those who till a hard soil? If so, the reason is plain that they use the best tools. Are not a large proportion of the farmers of Massachusetts and other States tillers of stony soil? Why, then, are they overlooked? Is the soil, or tools, incapable of improvement, or are its owners unwilling to accept of improvement?

My object, at this time, is to ascertain if there is at the present time, in the whole world, a plow manufactured for the express purpose of tilling stony soil. If there is such a thing in existence, you or any one would confer a favor, not on one merely, but on many, to let it be known, through the medium of your valuable paper, where it can be found. Until I know of something better than I now do, I shall for one beg leave to follow the good old way of my fathers in this respect.

And again, when agricultural writers recommend deep plowing and subsoiling, do they intend it for a soil filled with stone, the soil itself a little softer than the stone, and supported by a hard pan not quite as high as the third rail of the fence? Or is it for the soil along river banks and the plains of the west? If the former, we must have different tools, or request the gentlemen to come and show us how to use those we now have. What we want is, a plow that will not be frightened at the sight of a few stones, as the power to move it is easily supplied. Any information concerning the above will be thankfully received by

A TILLER OF HARD AND STONY SOIL.

New Marlboro', Jan. 20, 1855.

CLIMBING PLANTS.

Among our readers there are thousands of persons who are not farmers, but who, at some day, intend to be, and who are earnestly interested in all that pertains to rural employments. They are active business men, with intelligent families, partaking largely of their tastes for country life, and not enjoying that, beautifying the town or city home with such fruit trees, shrubbery and climbing plants as the limits of their crowded position will allow. Our suburban towns are annually increasing their attractions through this taste for the beautiful; and something of it is finding its way into the country, where grim labor alone has heretofore held undisputed dominion.

All persons, of all ages and conditions, express admiration on beholding a noble vine bending with its ripening fruit,—or a porch or piazza covered with the rich foliage of flowers of the climbing roses, filling the room, whether of cottage or palace, with their rich perfumes—or the repulsive walls of a building, covered with the silver or golden striped ivy or Virginia creeper.

The *Scarlet Trumpet Honeysuckle*, the *Yellow Trumpet Monthly*, and the *Evergreen Scarlet Monthly Honeysuckle*, are hardy and beautiful climbers for the pillars of piazzas, summer-houses, or trellises. The *Chinese twining Honeysuckle* is another, growing remarkably fast, and the flowers which first appear in June are deliciously fragrant.

The *Purple or Crimson Boursault* rose is quite a wonder of beauty in the latter part of May, when trained on the wall of a cottage, being then literally covered with blossoms—and it is so hardy that scarcely a branch is ever injured by the cold of winter.

The *Queen of the Prairies* is a superb variety, and known by some as the *Michigan Rose*. The flowers are of a deep rose color, with a white stripe in the centre of each petal. This variety is the most luxuriant grower of its class, making a surprising growth in rich soil. The *Baltimore Belle* is another perfectly hardy plant; the flowers are a pale, waxy blush, almost white, very double, and in large clusters.

The *Virginia Creeper* or *American Woodbine*, is a hardy, rapid growing, and exceedingly ornamental plant. It is a native of our woods, and climbs rocks and trees to a great height. The flower is of a reddish-green, and not showy, which is succeeded by clusters of dark-blue, nearly black, berries when mature. At the same period the fruit-stalks and tendrils assume a rich crimson or red color. The leaves are not evergreen like those of the ivy, yet in autumn, they far surpass those of that plant in the rich and gorgeous colors which they then assume. The reader is referred to Emerson's work on the Trees and Shrubs of Massachusetts, for a full description of this interesting and beautiful climber.

We have now spoken of eight varieties of climbers, all hardy and exceedingly ornamental when vigorously grown. These would give character to any garden of considerable pretensions, and any three or four of them would render our rural gardens or lawns highly attractive. They require no uncommon skill in their cultivation—the soil that would produce a good hill of corn, will sustain any one of these climbers. They should be pruned cautiously, always being careful not to use the knife and scissors too much. The dead wood should be removed. In his excellent "Book of Flowers," Mr. Breck says that "in pruning climbing roses, the operation must be different from that of the common roses, as it is necessary to retain the whole length of the most vigorous shoots, cutting out all the old wood that will not be likely to produce fine flowers, and pruning down the *lateral branches to one eye.*" But after all, the manner of pruning must be left to the good taste and judgment of the cultivator, rather than to any strict rules—the proper way will generally suggest itself. Roses may be pruned in this climate early in the spring, before many warm days have come, or in

June. Our practice is, however, to prune nearly all trees and shrubs that require it, in October, and it has been attended with good success.

It is seldom the case that so much real beauty and value can be obtained at so cheap a rate, as by the cultivation of a few of these plants about our dwellings. Downing says "the cottage in the country too rarely conveys the idea of comfort and happiness which we wish to attach to such a habitation, and chiefly because it stands bleak, solitary, and exposed to every ray of our summer sun, with a scanty robe of foliage to shelter it. How different such edifices, however humble, become when the porch is overhung with climbing plants,—when the blushing rose-buds peep in at the window sill, or the ripe purple clusters of the grape hang down about the eaves, those who have seen the better cottages of England, well know. Very little care, and very trifling expense, will procure all the additional beauty; and it is truly wonderful how much so little once done, adds to the happiness of the inmates. Every man feels prouder of his home, when it is a pleasant spot for the eye to rest upon, than when it is situated in a desert, or overgrown with weeds. Besides this, tasteful embellishment has a tendency to refine the feelings of every member of the family; and every leisure hour spent in rendering more lovely and agreeable even the humblest cottage, is infinitely better employed than in lounging about in idle and useless dissipation." Now is the "time to work"—let one beautiful climber, at least, be added to your grounds this spring, even if you have but a square yard to occupy.

For the New England Farmer.

"ALL ABOUT GUANO."

My experience in regard to this fertilizer, like that of most of your readers, is quite too limited for furnishing reliable information on so important a subject; but such as it is, it is at your disposal.

I have made some use of guano for the two last seasons—the first was on a very limited scale but so, beneficial were its results that I was induced last spring to purchase two tons of it, at a cost, delivered by railroad, of about $112.

I made use of it on various field crops, and also on garden vegetables. About half a ton of it was applied as a top-dressing to some four or five acres of old meadow land, after having first been mixed or composted with about an equal weight of plaster, and some twelve cart loads of rolled turf. This was applied in April, and a short time after its application, a powerful rain completely inundated nearly all the ground on which it had been spread, and remained on it or continued to flow over it for two or three days. An adjoining field of my neighbor's bore ample testimony to the enriching properties of the water which flowed from my land on to his. But its effects on my own land during the fore part of the season were strikingly manifest in the deeper green and more forward growth of the grass, and I had strong hopes, then, of harvesting a bountiful crop. These hopes, however, were but partially realized, the increase of the crop not being worth more than half the expense of the manure. I may say that most of the land to which this dressing was applied became too dry after the middle of June to be benefited very much by any kind of manure.

I design this spring to use some of it on land which is rather wet and not liable to drought, and hope to succeed better. In connection with superphosphate, I used it on cabbages and turnips with satisfactory results. I also used it on about four acres of potatoes, generally in the hill or drill, according as the potatoes were planted; sometimes it was used alone, and at other times with plaster or some other fertilizing agent. I made a brief memorandum of the manner in which it was applied, in the hope that the experience of that season would furnish me some data by which I might benefit myself or others in future. Vain hope! My crop, which appeared promising at first, was nearly ruined by drought. Of course I cannot say what the effect might have been under ordinary circumstances.

I also used guano on corn in various ways, but applied too much of it on or near the surface to realize the greatest amount of benefit from it in so dry a season.

I have no doubt that much of it is yet in the ground, and will show itself the coming season. But instead of taking up more space in detailing past experiments, I will briefly give you some of the conclusions to which I have arrived as the result of observation and experience, in the use of this and other highly concentrated manures.

1. Powerful fertilizers, alone, never will make a crop.

2. Everything depends, so far as human instrumentality is concerned, on the use that is made of them, not alone, but in connection with such other constituents and appliances as are adapted to secure the desired result.

3. A very rich soil, or one that abounds in vegetable and organic substances, does not need them; unless it be to give the crop an early start in the spring or to *hasten* its growth and maturity. Such soil possesses of itself resources, which only need to be properly developed in order to render the production of a crop, under ordinary circumstances, more economical and profitable without, than with extraneous applications.

4. A soil that has become so impoverished as to be almost, or entirely, destitute of vegetable and carbonaceous matter, has also become unfitted, while in such condition, for the economical use of guano or any other powerful fertilizer.

This last remark does not apply so strictly to those plants which derive their supply of food largely from water and atmosphere, as to others which depend mainly on the constituents of the soil, in connection with water and the atmosphere. Such crops as onions, carrots and parsnips, it is true, feed largely on water, but only when they can obtain it principally, along with the soluble portions of earthy matter of which they are composed. It should be borne in mind that in the production of a plant, not an atom of matter is called into existence, but merely a transfer of atoms from one condition or mode of existence to another. As man has not the control of the atmosphere, his only alternative is to provide for the wants of animal or vegetable life in the soil. If nature has not made such provisions, it will certainly be found to be a very expensive way of doing it by the use of guano alone, especially for the cereals, which require vegetable matter for the production and perfection of their kind. I will here venture a few suggestions for the use of guano.

1. If your corn ground is cold and heavy the fore part of June, and the plants appear yellow and sickly, apply a little of it directly to the hill; if a little of it falls upon the plant, it will seldom sustain any injury. The gain in the crop will probably be three or four times the cost of the application.

2. If you wish to raise corn-stalks for fodder, by all means use guano, and save your barn-yard manure for other crops. I do not think guano as good as yard and compost manure for making ears, but it certainly is good for making stalks. If you apply it to some remote corner of your farm on to which you cannot conveniently cart other manure, all the better, whether for this or other crops.

3. For potatoes, a compost, made of guano and well pulverized muck, would, in my opinion be preferable to barn manure, and less liable to the rot. Will you try it in some of these ways, and then give us the result of your experience?

Bristol, Ct. C. Blakely.

HOW A THRIFTLESS FARMER WAS REFORMED.

[We copy the following story from one of Dr. Glen C. Haven's Letters to his Son, published in *Life Illustrated*:]

If you have a place for every thing, and keep it in its place, if you have a *time* to do business, and do it in its time, you will find that you will "*drive* business" instead of business driving you, and so will have leisure instead of constant worry. It pains me to see some men undertake any business of moment. They are as sure to become entangled, and thrown on to their backs, their business a-top of them, as they are to undertake it. Take farming for instance. Now I venture the assertion that two-thirds of all the farmers in *this* State are burning *green* wood this terrible cold weather. Go into their houses, and you hear the sissing of the beech, or maple, or elm, as like to the death-dirge of a cockroach as can be. Out of the chimney tops comes forth smoke dark as Tartarus, and there wives and hired girls are cross as bedlam. These men could not find time to cut there wood and have it seasoned. Now I charge it on you, that you fail not to *have time to do* all that you undertake—*in order*. Every day accidents, casualties, catastrophes, providences are taking place, because men, women and children have not time to do things as they *ought to be done*. I must tell you a story—which is a *fact*. When I was a boy, these lived in my native village a family by the name of Wilson. There were four boys and four girls, and they were exceedingly gifted. Not one of them was there who did not rank in beauty, intellect and personal physical power a good way above mediocrity. They all had more then common educational acquirements, for they learned easily. The girls all married early, and to young men of high promise. The men all married—and to respectable women. Yet all remained poor. Their failure was directly attributable to a *want of order*. Not one of them was ever known to do a thing in its *time*, nor have a thing in its *place*—with one exception, and he is the hero of my story. Of one of the girls I may say truthfully that for over thirty-five years she has *never seen the sun rise*, always going to bed past midnight and rising past midday. But to my story. Erastus Wilson was a farmer—a shiftless, slovenly, disorderly, slip-shod farmer. The winds and the waters, the sun and rain, darkness and broad day, all conspired to do him harm. His gates were unhung, his hogs' noses were unwrung, his sheep could leap his fences like wild deer, his cattle were seen with boards over their eyes, great spiked chains on their necks, pokes on, and "tied head and foot." His horses were as thin as a Rhode Island spare rib—you could see sunrise through them. His windows had old hats, old coats, old newspapers, and shingles, instead of glass. His corn was stunted, his meadows half covered with grass, and around and about him the spirit of *decay* seemed to brood. Yet he worked hard, did not drink, nor gamble, nor quarrel. In fact, he was a *pious* man, but he did every thing at the wrong time and in the wrong way.

Thus he lived until his hair turned *gray*, and poverty sat at his table an acknowledged member of his family. One cold December day he was going to his barn, and it happened that he lifted up his eyes, and afar off in one of his lots he saw something that looked to him like deer-horns sticking through the top of a snow-drift. He was all alive. He would make a conquest—so over the fence he leaped and made for the *deer*. He waded the drifted and undrifted snow till he reached the spot, when, behold! instead of the horns of a buck, there stuck up the *two handles of his plow*. He was very angry, and started to go back, when he said he heard a voice as audibly as ever a voice spake, say, "Erastus Wilson, you deserve a good flogging for leaving your plow out in the snow. It is by such heedlessness you have come to poverty. Pick up your plow and take it to the barn."

He immediately set about it, and by what means he did it he never could tell. But through that deep snow and over the drifts he dragged the implement to the barn. Once there, he took a raw hide, stripped himself naked, and addressed himself:

"Erastus Wilson, you are a mean, dirty, poverty-stricken man. All your long life you have been too lazy to save what you have earned, or too careless to do it. You deserve a flogging. Here is your plow whose handles you could never see, till you thought them the horns of a deer, then you could wade drifts waist deep to get them. You deserve a good flogging, you careless blockhead, and you shall have it;" and he laid the raw hide on to his body, legs and feet, till he raised great wales, he skipping around the floor naked and screaming, while he would say, "Leave your plow out! will you? Pretty farmer you are, aint you? I'll see if I can't teach you better." Thus he flogged himself most soundly, dressed himself, and went in. From that flogging he came forth a changed man. He was prompt, orderly, saving, and up with the times. His neighbors were surprised. His family were wonder-struck. He began to thrive, and in less than three years his farm, his flocks and herds all bore the evidence of being under the guidance of a spirit whose energies were of the amplest order. About this time he sickened and died.

NEW BOOKS.

The Practical Fruit, Flower and Vegetable Gardener's Companion, with a Calendar. With elegant Illustrations. This is another work from the distinguished agricultural publishers, **Saxton** & Co., New York. We have examined it with some care, and believe it will be found serviceable to every man who cultivates a garden.

It treats, in the first place, of the *fruit* and *kitchen garden* in general,—of situation, shelter, water, soils and manures. Then of the *fruit garden*,—of the propagation of fruit trees by seed, by layers, by grafting, and planting and training of fruit trees. Something, also, of the grapevine, fig, peach, nectarine, &c., and of the small fruits, the currant, strawberry and blackberry. It then briefly describes nearly all the vegetables usually cultivated in the *kitchen garden*, and the manner of sowing and tending them. The *flower garden* is also described, its soil, walks, edgings, &c., and many of the flowers enumerated adapted to the various seasons. The *forcing garden* comes next, and the construction of furnaces, the modes of heating by steam or hot water, and the admission of light and air minutely described and illustrated by cuts, so that the whole process is plain.

To these is added a calendar of horticultural duties for each of the months, and a select list of fruits. The modes of grafting, budding, of espalier training, training of wall trees, and horizontal and fan training are all illustrated by good engravings.

"The work is pre-eminently suggestive. The reader will be surprised at the amount of valuable thought and accurate information herein embodied." It was prepared by Patrick Neill, Secretary of the Royal Caledonian Horticultural Society, and adapted to the United States by G. **Emerson**, a gentleman eminently qualified for the work. Price $1.25.

Breck's Book of Flowers. J. P. **Jewett** & Co., Boston. By **Joseph Breck**, Seedsman and Florist, and a gentleman who knew what he was about when he prepared this agreeable and useful work. In its comprehensiveness and arrangement it is excellent, and its topics are treated with so much delicacy, good taste and poetic feeling, as to give the whole a bewitching charm. If any young lady will look over its pages for half an hour, and then confess that she has no taste for a garden and flowers, why, then, she isn't fit to have the care of children, that's certain; at any rate, we would not let her teach ours! Printed and bound beautifully.

For the New England Farmer.

ABOUT GUANO AND SUPERPHOSPHATE.

I took pains early in the spring, when the rain was pouring down in torrents, to go about four miles to an old dry pasture to sow some guano superphosphate and plaster. During the summer, I often went to see its effects, but saw no effect at all. On a piece of moist pasture, with clay bottom, I sowed some phosphate, and it caused the clover to come in very thick; but plaster would do equally as well, if not better, as it is plainly to be seen half a mile distant, where the plaster was sown thickest; but on corn I was pleased with its effects. The best corn I raised was on a piece that was spread lightly with common manure, and then a small handful of phosphate put in the hill. It was not measured, but was pronounced by good judges to be the best piece of corn in these parts—far better than my other pieces that were spread and dunged in the hill liberally.

A gentleman of our town had an acre of worn-out, sandy land, which he did not consider worth cultivating; on this I sowed, on the 12th of June, 200 lbs. of guano, and plowed in deep. I then planted it with an early kind of corn, putting 75 lbs. of phosphate in the hill, and the result was a very good piece of corn, and ripe in good season.

In September last I seeded down some land, sowing part with phosphate and a part with guano; the result you shall have in due time. As I said last year, so I say this,—for corn, give me a tablespoonful of phosphate in preference to any other manure in the hill; but you want to spread some other manure and plow in deep, that the corn roots can feed upon in August and September. This is of more special benefit to those who have moist, hilly land, that cannot be worked early. If the manure is put in the hill, the heat of the sun causes it to burn up and leave a dry mass at the roots, and thus not only the virtue of the manure is gone, but it retards the growth of the corn during the whole season; while, on the contrary, if this had been plowed in and phosphate put in the hill, the latter would have given it a good start, and the former would have been incorporated with the soil, ready for the roots in autumn.

Yours truly, L. W. **Curtis**.

Globe Village, March, 1855.

Prices Thirty-seven Years Ago. — Looking over our file for 1817, we cast our eyes upon the prices current of February of that year; and as an evidence that the present prices of many leading articles have not come up to that time, we give a few samples. The prices given, it must be recollected, are the wholesale; the retail were of course higher.

Bacon, 15 cents; barley, $1,25 to $1,50; beans, $4 to $4,50 per bushel; butter, shipping, No. 1, 24 cents, No. 2, 22 cents; corn, $1,90 to $2,10; coffee, 19 to 21 cents. Virginia coal, from $9 to $15; flour, $14 to $15; hay $21 to 24; molasses, 48 to 54 cents; peas, $2,50 to $3; rice, 7 cents; rye, $1,75 to $3; sugar, loaf, 23 to 25 cents; brown, 11 to 15 cents; teas, hyson, $1,70, hyson skin, $1, souchong, 68 to 75 cents. —*Portsmouth Journal.*

For the New England Farmer.

CRUELTY TO ANIMALS.

"A merciful man is merciful to his beast." Tried by this test, the number of those who can appropriate the promise made to the "merciful" must be few indeed.

Touching this matter, there is a lamentable defect in our education. Children are not taught, as they should be, that brutes have nerves and are subject to pain, for aught we know, as acute as human beings; and that to needlessly inflict pain even upon a worm, is inhuman, not to say sinful.

Inhumanity to man everybody condemns. And who does not know, that the boy who can remorselessly rob a bird of her eggs, and destroy her nest, has taken the first step in his education towards heartless tyranny?

Working Oxen.—There are various modes in which this tendendy to ignore the feelings of brutes manifests itself. The patient ox who tills our ground and bears our burdens, laboring when and where the interest or caprice of his owner may dictate, till, by reason of age, he is worth more for the butcher than for the team, deserves while he lives, to be well-fed and kindly treated. How seldom, alas, is this his fate! We occasionally see a man driving oxen, who seems to be conscious that they can *feel.* But oftener far, the teamster seems to regard skill in the use of his implements of torture, as the perfection of his art. Consequently he is incessantly belaboring the faithful, submissive beast with his cudgel, whip, or goad, whenever he thinks his blows will occasion the most pain.

In some parts of New England, especially in Maine, teamsters use what they call "goads." This consists of a rod with a spike in one end about half an inch in length. With this they perforate the skins of the poor animals, as often as they need exercise or recreation.

The savage who fills the flesh of his victim with barbed arrows and lighted pitch pine splinters, may plead his belief that thereby he shall propitiate the Great Spirit. For this wanton cruelty of the teamster, no apology can be found in Pagan, much less in Christian ethics.

Then the idea of whipping an ox to make him draw, seems to me unphilosophical. As with children, it may sometimes be necessary to inflict bodily pain in order to bring the will into subjection. But this whipping an ox by way of preparation to draw, reminds me of the provident father who, being much from home, was wont to call his boys together Monday morning, and administer to each a severe flagellation; reminding them, if they demurred on the score of innocence, that they would merit it before the close of the week.

Like begets like. Be gentle to the ox, treat him kindly, and he will be gentle in turn, and will draw all he can, and bear with patience all good burdens. A good teamster, with no whip but a corn stalk or an oat straw, and without noise, will make his team do all he desires, and that with alacrity.

The *whip*-ster on the other hand, making so many and such unearthly noises, that in the days of our grandfathers, his approach would be mistaken for an incursion of savages, and pounding and punching and pricking all the spirit, animation, courage and strength out of his team, getting "stalded," as they say in Virginia, at every tight place, accomplishes nothing but the ruin of his team and his own disposition.

If I shall have induced one individual to adopt a more humane and more rational course in the management of working oxen, I shall not have written in vain. R. B. H.

LECTURE ON AN IMPROVED FIRE SYSTEM.

Reported for the New England Farmer,

BY WILLIAM W. HILL.

In lieu of the usual discussion on agricultural matters, the attendants upon the Legislative Agricultural Meetings were on Tuesday evening last, treated to a well-written and interesting lecture upon an improved system of protection from fires, by JOSEPH BIRD, Esq., of Watertown.

The lecturer opened with an eloquent portrayal of the characteristics of fire as witnessed in the destruction of human dwellings, and often of human life, and remarked that no subject was more important to the community, either socially or financially. In support of the financial view of the matter, he read an extract from *Silliman's Journal*, in which it was stated that great fires had invariably preceded the periods of great commercial distress in this country, and the theory was broached that they exerted a vast, if not a controlling influence upon the financial condition of the community. In proof of this the great fire in New York in 1836, and the numerous fires which occurred in the United States the last year, were cited. It was estimated that the annual loss from fire is $18,000,000, but the speaker believed that the losses were nearer $25,000,000.

He then proceeded to discuss two points—first, is our present system for the prevention of fires, efficient? And second, can it be made efficient without too great an expenditure of money? To the first proposition he replied no. In the country, the engine is often a mile or two from the burning building, and time is required before the firemen can assemble to take the engine to the fire, and after they get there no reservoir of water is at hand for their use. Their efforts are consequently almost useless, and the building is destroyed. The same is true in a great measure in regard to cities. This displays the inefficiency of the present system. Before the department can get to work, they are powerless before a sea of fire. Our engines are so large and costly, and it takes so many men to handle them, who also want compensation, that it is put out of the power of nearly all country towns to keep a sufficient number to meet all emergencies.

Taking up the second proposition, the lecturer forcibly argued that the present system could be made more efficient, and cheaply too. By the substitution in Cambridge, for instance,—where they maintain several large engines at an annual expense of $11,400, and valued $20,000,—of 100 small engines costing $25 each, with thirty feet of hose, which would throw a three-eighths inch stream upon the roof or into the windows of any ordinary dwelling house, having them distributed in different parts of the city, they would in less than one year pay for themselves by the decreased losses from fire which would follow by such a system. Nearly every dwelling would be in the immediate neighborhood of one of these engines, which could be worked with less than half of the labor now expended upon the large ones, and half a dozen of them could be upon the ground in a very few minutes after the alarm was given. They would also tend to lessen the losses by fire, in the obstacle which they would be in the way of the incendiary through the celerity with which fire can be extinguished with them. They would put out ten fires where a large one does one. Numerous cases were cited to sustain these views.

There are more than one hundred towns in this commonwealth, which are entirely unprotected, while the whole farming interest is in a helpless condition in case of fire. The small engines, the speaker said, had been tested, and found fully competent to do all that large engines could do, and more than that, would put out a fire before large engines could be brought to the spot. Their efficiency has been witnessed by great numbers of people. The lecturer's plan is to have a fire department including both small and large engines, the former to act chiefly as preventatives of destructive fires, and the latter on lofty buildings and where the fire has made great headway before being discovered. By the use of one small engine upon the first breaking out of the disastrous fires which have occurred in San Francisco, millions of dollars might doubtless have been saved.

Another argument in favor of small engines is, that where a town introduces ten or twenty, the citizens, witnessing their efficiency and cheapness, will introduce others as a special protection for their own premises—so that the number will be indefinitely increased, and the chances of loss by fire consequently vastly lessened. Captain Barnicoat, the late veteran chief of the Boston Fire Department, had told the lecturer that he considered the present engines in that city as too large, and that smaller ones would possess great advantages over them.

Another consideration urged by the lecturer was, that our numerous school-houses, academies, colleges, alms-houses, &c., are entirely unprotected from sudden fire, and thus the lives of the inmates are greatly hazarded. This danger could be obviated by having a small engine in the building.

Upon the conclusion of the lecture, some remarks were made by Mr. Wm. Hall, Representative from Bradford, who commended the views advanced by Mr. Bird, and cited cases where his observation corroborated the statements made by him. He also alluded to the bad moral influences which cluster around the present fire system, and which operate so unfavorably upon the young men connected with them, and lead often to incendiarism.

Mr. Buckminster, of the *Ploughman*, suggested that hogsheads of water might be kept on hand in farm houses, as a precaution against fire. On his own place, he kept a pail of water in each room in the second story, and although a simple precaution, it might, notwithstanding, prove very effective in an emergency.

Mr. Darling, of Boston, made some statements illustrative of the immoral character of fire companies, under the present system. He advocated the feasibility of using small engines, and thus diminishing the number of large fire companies.

On Tuesday evening next, the present series of agricultural meetings will be brought to a close. It is understood that Governor Gardner will preside on the occasion. The subject for discussion has not been announced.

For the New England Farmer.

WASTE OF MANURES—MUCK—HOPS.

Mr. Editor:—Though a pastor, I have ever endeavored to impart important instruction to my people on *agriculture*. Nor do I consider this a departure from my appropriate sphere, any more than when I advocate and endeavor to illustrate the importance of improvement in *schools*. When I see my people suffering loss from exposing *manure* to all the winds of heaven, and all "the peltings of the pitiless storm," I feel it my duty to expostulate with them. And when I see them utterly regardless of the kind provisions of Providence in the inexhaustible beds of what Dana calls "vegetable cow manure," abounding in this section of Vermont, I cannot fail to charge them with being recreant to the duties they owe to themselves, to the community and to religion.

The greatest mistakes of farmers in this county are in the two particulars above mentioned. Another prominent error is too shallow plowing. The soil in this county is generally very deep—in many tracts two to three feet—and should be plowed to the depth of ten or twelve, instead of four to six inches. The farmers who plowed to the greatest depth, suffered the least from the drought of the last summer.

In one or two of our towns, *hop growing* is becoming "the mania," one of the results of which is already being experienced—an obvious deterioration of the soil, and a deficiency in bread-stuffs and fodder. To say nothing of *hop growing* in its relation to temperance, I must regard it as a serious evil to the *true wealth* of every agricultural community. Whatever tends to lessen the quantity of manure, or to use up the strength of the soil, must in the end prove injurious.

Respectfully yours, SAMUEL W. HALL.

Brownington, Vt., 1855.

For the New England Farmer.

SOILING CATTLE.

In the *Farmer* of March 31, HENRY F. FRENCH, Esq., gives us his "Thoughts on Climate," in which he assumes that the expense of keeping cattle, horses, sheep, &c., during our New England winters, exceeds that of keeping the same number of animals in a southern climate, where they obtain their own forage, by the total amount of our hay crop. This crop in New England is estimated at thirty-five millions of dollars; and, if the assumption be correct, it is certainly a pretty large expenditure in the competition of climates. I hope, however, that none of our New England farmers will be induced, by this array of figures, to emigrate to the south—at least, not until they have looked a little below the surface of the calculation. Mr. French must be aware that it requires land, and a good deal of it, to pasture cattle during the winter, and that lands thus grazed the whole year round, without opportunity to rejuvenate, must gradually deteriorate, though they be composed of the richest alluvions of the southern valleys. It may be true that the wild cattle of the great *pampas* of South America are raised more cheaply than our domestic cattle; but we do not learn that those who catch and kill them for their hides and tallow, become more wealthy than our New England farmers. When those immense plains are parcelled out into farms, it will be time enough to settle the question whether cattle can be raised cheaper because there is no winter.

It is not, however, with a view of discussing the relative advantages of different localities in regard to the hay crops, that I have taken Mr. French's remarks for a text. My real object is to say a few words upon a subject which those remarks indirectly involve—namely, the *soiling* of cattle. In England, where the price of land is exceedingly high, (although the pastures are more productive than ours,) this mode is fast becoming one of almost universal practice. It consists simply of mowing the grass and feeding it out to the cattle, both summer and winter, instead of pasturing them through the summer. It takes about ten acres of our common pasture land to keep a cow well through the summer; while *one* acre, well cultivated, will perform the same service, if the grass be cut and fed out. Where the price of land is high, it will take but few figures to show that the interest on the cost of the extra nine acres, far exceeds that of cutting and feeding out the grass on the one acre—to say nothing of the great saving of manure by the soiling process. It is, I believe, the universal testimony of English farmers that soiling is the cheapest process, aside from the fact that it is a conservative mode of farming, and greatly increases the productiveness of land from year to year. It is but fair to presume that cattle trample down quite as much grass in the pasture as they eat, while the too frequent croppings binds the sod and hardens the surface of the soil. If soiling cattle is, in the end, cheaper than the pasturing of them, then the thirty-five millions worth of hay, used up of a winter in New England, is well expended.

I really wish some of our milk-farmers in the neighborhood of Boston would try the experiment of *soiling* their cows, and give us the results. It is an experiment which cannot be tried fairly in one year or five; but I candidly believe that, in ten years, any farmer trying the experiment, would be astonished at the increased aggregate productiveness of his land. E. C. P.

Somerville.

P. S. In regard to my article on the subject of growing fruit trees, you expressed regret that I did not give my experience as to the proper time for trimming them. The cause of the omission lies in the fact that I have not *fully* made up my own mind on the subject. From what experience I have, I incline to the opinion that about the time of the fall of the leaf, is the best for trimming off all small shoots or suckers, and that the fore part of June is the best time for cutting off larger limbs, where such amputation is deemed necessary. The question, however, is a very important one to fruit-growers, and I dislike to hazard a positive opinion until I *feel* positive.

REMARKS.—We think the remarks of Mr. French agree with those of "E. C. P."—that, upon the whole, it is best to remain in New England awhile longer.

We believe there is no one operation in which the farmer acts so much in direct opposition to his interests, as in that of pruning his orchards. The axe and the saw are now daily mutilating and giving mortal wounds to many a fair and promising tree, and this is done against the laws of vegetable physiology, and contrary to the plain principles of nature, merely to conform to an old custom.

SOAP VERSUS HENS AND CROWS.—Mr. Levi D. Cowles, of this place, informs us that he and his brother, Chester Cowles, have thoroughly tried the soaking of seed-corn in soap over night and rolling in plaster before planting, as a means of securing quick and vigorous growth, and as a remedy against crows and hens; and he says that nothing will give the corn a better start, and that neither hens nor crows will touch the corn when so treated. We have often heard of this before. The Messrs. Cowles say it is positively so.

Nash's Farmer.

HIGH PRICES.

Within the memory of every grown up man, eighty dollars was considered a high price for a horse that now sells at two hundred, and sixty dollars would buy a likely yoke of six and a half foot oxen, which will now bring a hundred and twenty. A good cow which used to be thought dear at twenty-five dollars, now cannot be bought for less than fifty, and so through all the prices of live stock. Again, the prices current, at retail, in all the principal towns of New England, show that butter is worth thirty cents a pound, beef from ten to fifteen, potatoes a dollar a bushel, hay about twenty dollars the ton, and the rest of our products in proportion. These prices are nearly double those of the average prices of the last thirty years, though we are not forgetful of the high prices of 1836 and 7, which, by the way, are readily accounted for, by the general inflation of the paper currency and credit system, and the speculating mania of those times.

It concerns the farmer, now, to inquire a little into the causes of the present extraordinary selling value of commodities, with a view to deciding, if possible, what course is best for him to pursue, in the production of them, for the market. If such prices are to continue, he may well consider, whether he may not take such advantage of them, as to turn his labor and his land to better than usual account. We can afford to expend two dollars a ton, beyond our usual amount, to produce our crop of hay, when it may be sold at six or eight above its common price; and we may hire a little more help in the dairy profitably, when butter is worth thirty cents a pound.

What causes the present high prices? We will not pretend that we can answer this question with entire satisfaction to ourselves, yet there are facts, within the knowledge of all, which, no doubt, tend to produce this state of affairs. The war in Europe may be named as one of them. Eighty thousand men, it is said, have already perished on the side of England and France, before Sebastopol. Add to this number, those who have been enrolled in the armies of the allies, above the number of the regular standing armies of those nations, and those who are indirectly turned from their accustomed pursuits, to convey troops, carry provisions, attend the sick, and the like, and we have probably an hundred thousand men, in England and France alone, withdrawn from the business of cultivating the earth.

Add to those an equal number, engaged in the service of Russia, and the vast increase of the armies of Austria, and of most of the European powers, who watch, with drawn swords, in preparation for battle, the issue of the pending contest, uncertain when they may be called on to engage in it, and it would not perhaps be an over-estimate to say that a quarter of a million of men are, at the present time, called away from laboring on the earth by the pending war!

Again, emigration from Great Britain, and especially from Ireland, has materially lessened the productive force of that nation. Much of this labor has gone to Australia, where it is employed in digging gold, and in the preparation for a new mode of life. Emigration to Kanzas and the West generally, has, in some localities in New England, been so extensive as to lessen the value of farms thus deserted, and the labor of those emigrants, thus interrupted, cannot for some years be applied to the soil so as to return to the markets its former amount of products. The unusual influx of gold into this country and Europe, has doubtless an effect to produce an *apparent* increase of prices. We say apparent, because an influx of gold, like an inflation of the paper currency, adds nothing to the real value of property. Its effect is merely to make money less valuable, so that more of it is given for articles of real value, as the products of the earth and of the arts. So far as this cause has operated to raise prices, we can apprehend no sudden change, for the production of gold seems to be already a regular business, as uniform in its results as other pursuits, and will probably so continue.

There seems to us no immediate prospect of peace among the nations. The labor which should go to feed the hungry and clothe the naked, is desecrated in mutual destruction, and another harvest, at least, must be gathered, before the poor survivors of the battle-fields find their way to their native lands, to renew their accustomed employment; and many years will pass, before the effect of this awful violation of the beautiful system of Providence, which gives bread for labor, will cease, and the regular laws of demand and supply be again established.

We believe that the products of the earth must continue to bear a high price, at least through another winter. It becomes the farmer, then, to make his plans, so as to have little to buy, and to make his products large, even at an unusual expense.

We are no advocates for lavish expenditures, but we believe that the farmer may safely employ more labor than usual this season, and may judiciously expend for manure, both of the stable and for guano and superphosphate of lime, and plaster and ashes, more freely than heretofore. He may feel assured that his own labor, skilfully applied to his farm, will be, this season, liberally rewarded.

Let not the farmer be behind other men in watching the signs of the times, and let him make up, by foresight and skill and energy, what he lacks in the natural fertility of a New England soil.

HOW TO ENRICH A GARDEN.

Messrs. Editors:—A few years ago I had occasion to occupy a new garden. It had been worn by continual cropping without manuring, till it would not produce half a crop of any thing. I had no manure to put upon it. I could have bought open barn-yard manures, that had been washed and bleached through the year till most of the salts and all the *urine* was gone, but I thought it would not pay well. Nor could I any better afford to cultivate a garden to the halves. There was a half acre in the garden. I planted about one-third of it to white sugar beet. The remainder to corn, potatoes, peas, beans, squashes, melons, cabbages, tomatoes, onions, &c. &c. There was one thing that I could do. I had a family of five, three adults and two children, one an infant. I placed a half hogshead, convenient for receiving the dirty slops of the family, including the urine of the chambers. This was filled about once a day through the week and two or three times on Mondays. My method of applying it was this: at evening I began at one end of the garden, and with a pail and dipper, I threw it upon the hills and beds of every thing I planted, till the tub was emptied. The second evening, I began where I left off the first, and continued on till the tub was again emptied. So I continued till I had gone over the whole garden. I continued to repeat the same process through the entire season, or until the garden had become so matured as to need no more food. The first time going through the garden, as the seeds were not up, I used a large watering-pot, with a coarse nose. The second time through, I used the pail and dipper, and applied the liquid around the young plant. As the plants became large and nearly covered the ground, I applied the liquid to the ground wherever it was naked.

And now for the result. I had a neighbor, Dr. C., a competitor in the gardening line, that summer. His garden joined mine, the same size and the same quality of soil. He had plenty of open barn-yard manure and plenty of time to work his garden. He often boasted of having had the best garden in town, and thought he should have the best, notwithstanding mine. But no sooner were the gardens both well up, than the Dr. began to show signs of suspicion that he should be beat. About the first of July he came into my garden and said, "I have come to inquire into the secret of your power over the vegetable kingdom. The rapid growth of your garden is a great mystery to me. Your garden was plowed once, mine twice, and dragged well. Yours was run down and had no manure, mine was in better order, and besides, had plenty of manure. Mine also has had a little better attention than yours, and now the first of July, yours is certainly thirty if not fifty per cent. ahead of mine. Tell me what you have done to it." "Well, Doctor, come with me into my wood-house," said I. "There, that tub, with the help of my good wife, contains all the secret there is about it. I have been feeding my garden just as you do your pigs." "Well, now I see what you have been doing all summer. I supposed you were watering your garden all summer, and I wondered why you should be doing that when there has been plenty of rain. Now I see the mystery."

That garden, Messrs. Editors, had the reputation of being the most thrifty and the most productive of any garden in the county. That was my first experiment with the waste water of the family. And as that was applied to a half acre of worn-out land for only a part of four months in the year, I came to the conclusion that had the whole been judiciously applied one entire year, it would have been amply sufficient to keep, in a high productive order, two acres. But in this estimate, I have not included the excrement from the privy. My opinion was then formed, and has been confirmed by later experiments, that the manure from the family would be amply sufficient to enrich as many acres for all the purposes of agriculture, as there are members in the family, and this, too, exclusive of absorbents to be used. But, by the judicious use of absorbents, the amount could be easily doubled or quadrupled even. And this would be the true way of saving and using the liquid. With the expense of one-half ton of guano, in *permanent fixings*, any farmer could make from his house one ton a year through several generations. It will *certainly* pay. J. L. Edgerton. *Georgia, Vt.—Country Gentleman.*

For the New England Farmer.

SPRINGS—LIVE AND DEAD WEIGHT OF CATTLE.

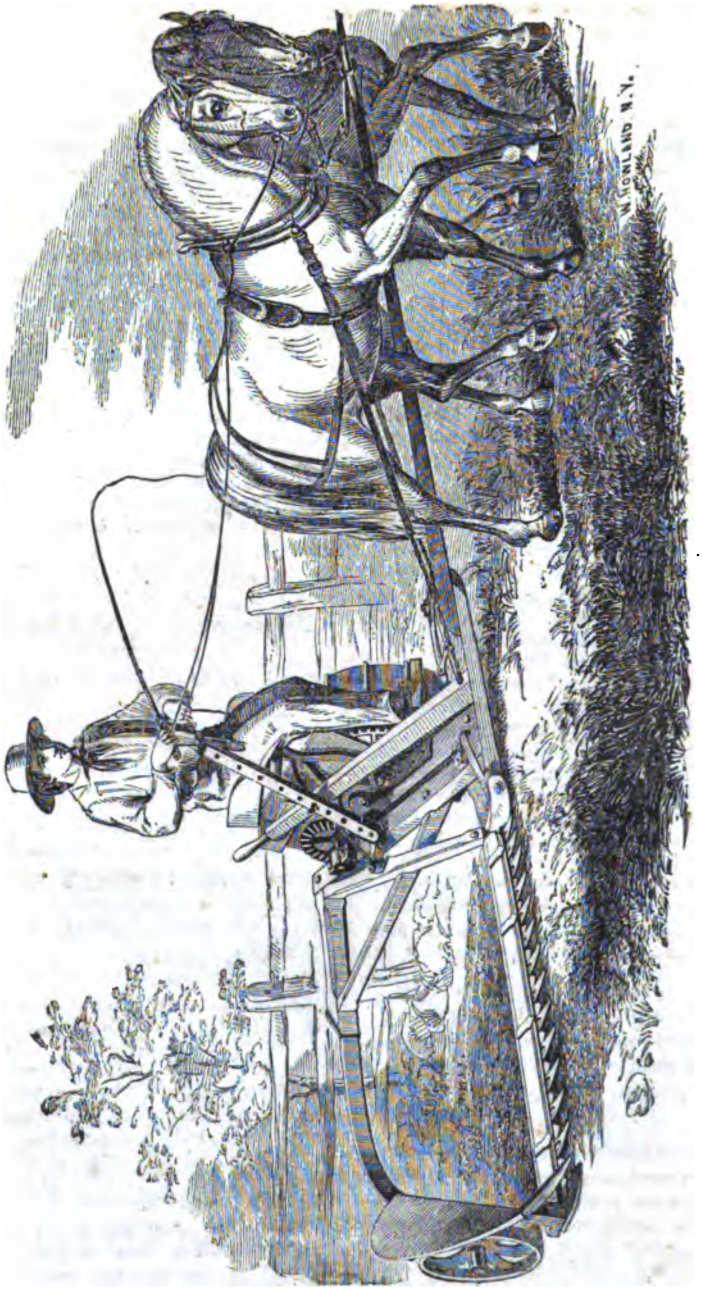
I would like to propose one or two questions, for you or some of your able contributors to explain. Last season, it being very dry and water scarce, I thought it would be a good plan to bring water into my yard for cattle, although I already had a well with a pump: so I went to work and dug me a well, before any of the rains came, where I had four feet fall from the bottom of the well to the top of where I wanted my trough to stand. I dug my ditch, put down my lead pipe, and it worked finely. But the query is this: I have observed that, for some few nights in succession, the trough would not get full, and at others it would fill to overflowing, with the same outlet.

Now will you, or some of your correspondents, be good enough to explain this to an ignorant brother farmer? Will you also tell the difference between live and dressed weight in oxen, from six to seven feet in girth and upwards, stall fed? Will you give us in your quotations, under the head of extras, the highest price paid as well as the lowest? For we in the back ground want to know what is going on, as well as the rest of the folks.

Yours, and the friend to all farmers,
A. S. Worthen.
New London, N. H., Feb., 1855.

Remarks.—Will some correspondent reply?

Seeds and Scions.—We thank our young friends, Emily F. and Henry B. Hanford, of Waukeshaw, Wisconsin, for seeds and scions of the crab-apple.


N. HOWLAND N.Y.

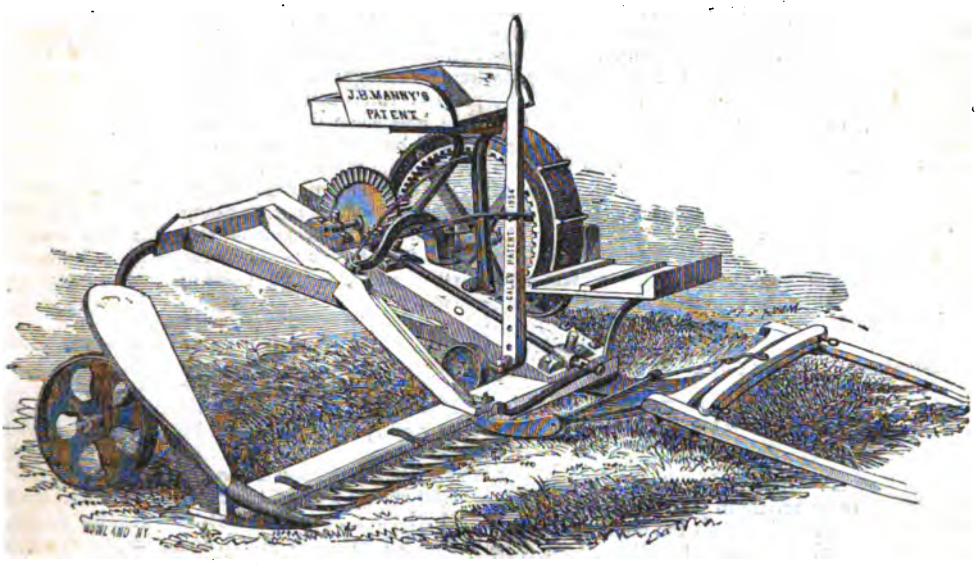
MANNY'S IMPROVED MOWING AND REAPING MACHINE.

MANNY'S IMPROVED MOWING AND REAPING MACHINES.

It is one of our principal objects to present to the farmer such new machines and implements, and improvements in old ones, as will best facilitate his operations, and enable him to transfer a large amount of labor from his own thews and sinews to the horse and the ox and the machine. The suggestions of a scientific mind will enable him to accomplish in a day, through the agency of animal power, and a few cogs and wheels and knives, what the exertions of twenty-five able bodied men would fail to complete.

The hay crop in New England is one of great importance; it comes, too, before the hoeing is finished, while the duration of the period of hot and drying days, when hay makes rapidly and well, is not of sufficient length to allow us to linger, or to neglect any modes by which the work may be done quickly.

A good *Mowing Machine* would be a blessing, indeed, to the farmers of New England; one that would cut the grass and leave it in a suitable condition to dry readily, and that could be managed by a boy, or some one not sufficiently athletic to handle the scythe.



We present these sketches of Manny's machines, now, in season, that the reader may have opportunity to learn of their ability to do his work, by inquiry, examination and early trial. We have examined them with interest and care, and, to our judgment, they commend themselves. We have not tried, or seen them in operation. Numerous certificates are before us from gentlemen who have used them, and who attest to their eminent ability to perform the work required of them. They are for sale by NOURSE & Co., 9 and 13 Commercial Street, Boston, where circulars and minute descriptions may be obtained. The price of the two horse mower, which cuts a swarth of 4 feet, is $100.00; that of the one horse, with 3 feet swarth, is $90.

POOR AND GOOD FARMING.—To plant without manure, and sell the crop off the land, is the poorest of all farming; but to plant either with manure or without, cultivate thoroughly, consume the crop on the land, and to secure to it the benefit of all the manure, is the beginning of good farming.

For the New England Farmer.

PRICES AND WEATHER IN IOWA.

ESTEEMED FRIEND:—Having changed my place of residence from the sterile hills of the Granite State, and taken up an abode on a fertile spot in this State, I thought it might not be uninteresting to the readers of the *Farmer* to contrast, for a moment, some of the dissimilarities of the two sections of country, as have naturally come to my observation during a winter's residence here, particularly as relates to the weather, &c. The *Farmer* and other sources have not failed to announce that it has been a remarkable hard winter in New England, not only as to extreme cold and deep snows, but also from the want of employment for the working-classes of the community, and the high prices of provisions.

During the twelfth month of 1854, and until the middle of the first month of the current year, we had occasionally a cold day or two, and then warm again. About the latter date, more steady cold set in. On the 23d of the first month, the mercury fell to 8° below zero; and on the 26th of the second month, it fell to 10½° below. These are the greatest extremes of cold that have occurred here, as reported by Job Briggs, a neighbor of mine, a highly respectable and careful scientific man, that may be fully relied on. The intermediate weather was somewhat variable, from mild and thawy to the above given state of the thermometer. There has not been on the ground, at any one time during the winter, more than four inches of snow, until the 16th inst., when we had about eight inches, (our robin storm.) Previous to this the weather was warm, and farmers had commenced to sow their wheat.

There is an unreasonable contrast in the price of provisions there and here; simply because there is, as yet, no railroad from the Mississippi river, and these hard times in the east, and all over the world, will tend *directly* to retard its construction. Corn here is worth twenty-five cents; wheat, from sixty to seventy-five cents; pork from two to three cents per pound.

Now I don't wish to dishearten any of the good New England farmers, but only to encourage some of those, who depend on their every-day earnings to feed perhaps a large family, to think if they might not help form a part of the respectable number of farmers already in this new farming State—to the advantage of their *sons at least*, many of whom, while the father is hard at work to get off his daily allowance of shoes, (or his family must come short,) are perhaps worse than idle.

The city of Oskaloosa, only twelve years ago ceded from the wolves and Indians, has now 2500 inhabitants, and stores, &c., furnishing every thing for comfort and convenience.

Daniel Fry.

Oskaloosa, *Mahaska Co.*, *Iowa*, 3 *Mo.* 20, 1855.

For the New England Farmer.

GRAVEL WALLS.

Mr. Editor:—A few days since, my attention was called to an article in your January number, requesting information as to the manner of erecting "gravel wall or concrete buildings," the cost, &c. My engagements preventing a reply at the moment, an intimation of the inquiry was given to Geo. B. Parrott, Esq., Civil Engineer of Boston, (a gentleman well qualified to advise on the subject,) from whom the following communication was received.

At an early day, I will endeavor to add some remarks from observations and inquiries I have made in reference to this subject. W. H. N.

Waltham, *March*, 1855.

Dear Sir:—At your request I herewith furnish you with a report upon the subject of building with what is called the "gravel wall," or concrete. Properly managed it not only makes a very cheap, but at the same time a most durable wall. The use of this kind of wall is very ancient, for it is found to have been employed by the Romans. "The walls of the fortress of Cindad Rodrigo, in Spain, are also of concrete. The marks of the boards which retained the semi-fluid matter in their construction are everywhere visible."

Of course, the quality of the wall must depend upon the *nature of the materials to be employed.*

In almost every building constructed in this vicinity, we find different methods used in making the concrete, and the construction of the works is left, almost invariably, to some hod-carrier, who only knows that he has been accustomed to make up the materials in a certain manner, *without knowing any one of the principles which regulate the action of the materials he works with.* We thus find that nearly all of the wall constructed during the past season in this vicinity is simply made by turning over the lime and mixing it with the gravel; water is then thrown upon it and it is left to absorb moisture necessary for its slaking; it is then turned over, once, and in some cases twice with a shovel. It is then in a *hot* state deposited in the boxes, and left to arrange itself as best it may. Such a mode of proceeding leads directly to a waste of materials, and failures are consequently frequent.

A very important lesson is to be derived from these failures. They clearly demonstrate that the greatest possible care must be taken in the mixture of the ingredients; that the first condition necessary to obtain good concrete is, that the lime be brought to the state of a perfect hydrate previous to its being mixed with the other materials, and when deposited in the boxes, it should be well beaten with a rammer to prevent the materials from separating.

The quantites of sand and gravel to be used, of course vary according to the quality of the lime and sand. The proportion found to yield a good result is as follow:—33 parts of rich lime, 33 parts of sand, and 66 parts of broken stone or gravel.

For the New England Farmer.

GAS LIME.

Mr. Brown:—Seeing an inquiry from two of your correspondents concerning *gas lime*, I will give my experience with it as a manure, though small; but then, you know, "every little helps."

Last spring I bought a barrel of it, for which I paid $1,00. Plaster sold at that time for $1,33, of which I bought a barrel, and mixed it with the lime one month before using. I applied it to corn with apparently good effect. My corn was not killed by it, though others make that complaint; but, in every case where the corn was killed, fresh lime or ashes were mixed with it, or as least so far as I know. My lime and plaster cost me 1,17 per barrel, instead of $1,33, as it would had I bought all plaster. I think fresh lime as cheap at $2,00 per cash as the gas lime at $1,00, though it would have to be applied with more caution, if applied in the hill when newly slaked. If others have had any experience with this kind of lime, will they be so kind as let us hear about it. S. Tenney.

W. Portland, *Andg. Co.*, *Me.*, *Feb.*, 1855.

Corn Cobs.—Corn cobs contain considerable farinaceous matter, the same as the corn itself; and it is said that in France a mill has been recently invented for separating it. Now that the farinaceous matter in cobs is nutritious, there is no doubt; but whether the great amount of hard, woody, innutritious matter they contain may not in some cases injure the animal as much as the farina benefits, is more than we know. Probably this may depend on how the animal is fed otherwise. If fed on very concentrated food, the woody matter, we should think, might be beneficial rather than otherwise; but if fed on coarse dry food, it would seem as if to stuff him with cob meal would only make bad worse.—*The Farmer—Prof. Nash.*

TWELFTH LEGISLATIVE AGRICULTURAL MEETING.

Reported for the New England Farmer,

BY WILLIAM W. HILL.

The *twelfth* and concluding meeting of the series was held on Tuesday evening.

The meeting was called to order by Mr. FLINT, Secretary of the Board of Agriculture, who made some interesting remarks appropriate to the closing meeting. He felt that the discussions during the meetings just closing had been of an unusually practical and useful character, and that they had personally benefited all who had listened to them; while the reports which had been published had been read and copied throughout the length and breadth of the land. The subject for this evening's discussion, *The Economy of Agriculture*, was one which embraced all the practical details of farming, and not only those, but the broader question of the duty of the State to promote the interests of agriculture. He concluded by announcing His Excellency Governor GARDNER as the Chairman for the evening.

The Governor, on taking the chair, expressed his interest in the cause of agriculture, and his especial approval of the objects for which these meetings have been held. He did not doubt but that they had been of great advantage to those who had attended them. Unquestionably, experimental knowledge is the most valuable, but these meetings, like the libraries of books which we prize so much, compress into a small compass the knowledge and experience of a great many intelligent minds, for the benefit *and instruction of all.* The Governor remarked that it was his good fortune to be born upon a farm, and he had always cherished a love for agricultural pursuits. Indeed, that very morning, and *early* too, he had left his home in the city to visit his farm, and he hoped to have the pleasure in a few months of eating some green peas raised from seed which he had that very morning planted with his own hand. He had eaten fruit of his own production every month in the year. Referring to the economy of agriculture, he remarked that a few days ago he had the pleasure of visiting the State Farm at Westboro', and of forming there the acquaintance of many members of the Board of Agriculture. He had previously read a good deal in regard to the farm, but had formed the opinion that the experiment of a State farm was rather visionary, and would prove only a waste of money. What he saw, and the explanations given him in regard to the experiments carried on by the Board, however, modified his former belief, and he was now of the opinion that the farm would be of great benefit to the farmers of the commonwealth,—much greater than the appropriations which have or are likely to be made to it by the State. In his opinion, the State should take a deep interest in the obtaining and diffusion of agricultural knowledge among the people, and he could conceive of no reason why Massachusetts should not be able to sustain her entire population, even though it should hereafter reach five millions, with the productions of her own soil alone.

Mr. PROCTOR, of Danvers, followed, at the call of the Governor, and urged the justness of the farmer's claims to aid from the State. He believed that the bounty extended by the State to the county agricultural societies, had been a great help to the agriculture of the State, and that the State farm at Westboro' would be of very essential service to the people of the Commonwealth. It is only by means of such institutions that we can learn the economy of agriculture. State farms should be established in all the counties in the State, to be placed under the control of the county societies, making annual reports to the Secretary of the Agricultural Bureau. It might be stipulated that each county should raise a sum equal to that donated by the State. He doubted whether the present system of dispensing the bounty of the State by means of premiums, was a judicious one. The same sums expended on experimental farms, whence valuable reports in regard to modes of cultivation, course of crops, application of manures, the breeding and management of cattle, &c., would be derived, would prove far more beneficial than the ephemeral cattle shows now in vogue, which make no lasting impression.

Mr. WATERS, of Beverly, spoke briefly of the importance of experiments in agriculture, and took occasion to allude to the great attention paid to raising onions in Essex county.

Mr. FISKE, of Framingham, referred to the remark often made to him by farmers, "Only give me a plenty of manure, and I don't care any thing about your *Boston Cultivator*, your *New England Farmer*, or your *Ploughman*. If I could only get manure, I could get crops fast enough." Many farmers who talk thus, could double or treble their manures if they would only make the most of their resources—bogs, sinks, urine, ashes, &c. He had raised forty to fifty bushels of corn to the acre, with a manure made up of meadow mud, sifted fine, ashes and urine from horse and cow, putting a handful on each hill after planting the corn, which was put into the ground without manuring. The economy of manure is the great point in farming. The wash of one sink will raise half an acre of corn.

Mr. **Proctor**, of Danvers, remarked that a farmer in his county cleared $400 from an acre of onions the last season, and that was only a sample of what is done in Essex county. The great secret of their success lies in the preparation and adaptation of manures, and in keeping the soil free from weeds. By attention to securing the best plants for seed, the size and quality has been greatly improved, and $2 and $3 a pound is paid for seed coming from Essex county.

Mr. **French**, of Braintree, illustrated the great want of information upon the various matters connected with farming—as location of buildings, the preservation and application of manures, the feeding of cattle, and the selection of stock—and argued that, from the complicated nature of these questions, private individuals were not competent to elucidate them. The matter should be undertaken by the State, through the agency of experimental farms. While speaking of stock, the speaker remarked that an English gentleman had long advocated "box-feeding" in fattening stock, and his views, it is believed, will triumph in England. He did not exactly understand what was meant by "box-feeding," but believed that it consisted in enclosing the animal in a stall or pen, and keeping it there on a dry floor until fattened. The English butchers invariably offer an advance for such beef, without knowing how it is raised. The speaker questioned the utility of littering the floor for cattle, having discarded the practice the past year, without noticing any detriment to the cattle in consequence. He also related the case of a Maryland farmer, who, in planting his hot, sandy soil with corn, put his manure on the top of the hill, believing that it was the true way, in which he was sustained by a farmer in the Connecticut valley. It was a new idea, and he intended to try it on a small scale, and would recommend others to do so.

Mr. **Sheldon**, of Wilmington, followed, and gave it as his opinion that where litter could be had cheap, bedding cattle should be kept up. He thought it made a material difference with oxen. It is economy to supply cows with water about milk warm in winter; they will give ten per cent. more milk.

Mr. **Dodge**, of Sutton, forcibly argued the duty of the State to furnish pattern farms, for the benefit of the farmers of the Commonwealth.

Mr. **Hall**, of Bradford, illustrated the benefits derived from study, and a perusal of the agricultural newspapers, by those who were wise enough to make use of them.

Mr. **Buckminster**, of the *Ploughman*, remarked that there were but two ways of doing a thing—the right and the wrong—and if we could induce the farmers to give up their stand-still notions, and try the various methods of cultivation, we should soon arrive at the economy of agriculture, and, by making it more profitable, our young men would be retained upon the farm.

On motion of Mr. **Hall**, the thanks of the meeting were presented to Joseph Bird, Esq., of Watertown, for his interesting lecture, last week, on an improved fire system.

The meeting then adjourned *sine die.*

For the New England Farmer.

SUPERPHOSPHATE OF LIME—THE BISON.

Mr. Editor:—Will you be so good as to give us some information in regard to the Superphosphate of Lime, an article of which we hear much, and know but little. What does it cost? (*a.*) How should it be applied to corn and potato crops? What sort of packages is it put up in? and what is its weight per bushel? (*b.*) We wish to try it, as we have utterly failed with guano, which, mixed with an equal quantity of plaster, we have applied, as a top-dressing, to portions of our wheat, oat and grass fields, and planted under the hills of corn, without being able, *at any time*, to perceive any difference between the parts so treated and the rest of the fields. We do not know of a single instance in which it has been applied, in this vicinity, in which the cost of the article and the labor of applying it was not a total loss.

Can you tell whether any attempt has ever been made to domesticate the Bison or American Buffalo? Ought that "Native American" race to be allowed to become extinct? Is there no ascertained way of perpetuating it *profitably?* (*c.*)

Rutland, Vt. Readers.

Remarks.—(*a.*) $45,00 a ton. Manure the land liberally, and apply a gill of the superphosphate to the hill; this will give the young plants a vigorous start before the roots spread themselves to receive the benefit of the manure.

(*b.*) It is put up in bags of about 150 pounds each, and probably weighs about 60 pounds to the bushel. Superphosphate of lime is manufactured as follows: When burned bones are digested with sulphuric acid diluted with three times its bulk of water, gypsum (sulphate of lime) is produced, and falls to the bottom of the solution, while the phosphoric acid, and a portion of the lime remain in the sour liquid above it. When this liquid is boiled down or evaporated to dryness, it leaves a white powder, which is known by the name of acid or superphosphate of lime. The sulphuric acid is made by burning the common yellow sulphur in large leaden chambers. One pound of sulphur produces about three pounds of the strongest sulphuric acid. It consists of sulphur and oxygen only—combined with a little water. Sulphuric acid is another name for oil of vitriol.

(*c.*) The bison, or buffalo, has been domesticated, but no good properties were found which the ox does not possess.

For the New England Farmer.

TRANSPLANTING EVERGREENS.

Mr. Editor:—I have often read in your paper the importance of planting evergreens for ornament and shade, and I know of nothing more beautiful in winter, when the fields and hills seem bound in ice and snow, than the drooping spruce, the lofty pine and graceful hemlock. Their ever deep, rich green, lends cheerfulness to the dreary winter, and makes a home, be it ever so humble, look pleasant and comfortable. I have seen rules in yours and in other papers, in regard to transplanting them, and I venture to say that if any of your readers have followed them, that not one tree in ten has survived the scorching sun of midsummer. (*a.*)

A writer in a late number of the *Country Gentleman* gives these rules, which I will give for the benefit of your readers, for I think they are good as far as they go. First, do not get trees that are too large. Second, be sure and get trees that have been exposed to the sun. Third, in taking up, do not mangle the roots. Fourth, do not prune too much. Fifth, be sure not to let the roots dry before they are placed in the ground. To which I would add, as the great secret of success, do not transplant them in the fall or early in the spring, but when they are in a growing state, and have made one inch growth; with these rules strictly observed, fail is impossible. I attribute the ill-success of so many in transplanting the evergreens, particularly the hemlock, more from want of knowledge as to the proper time of planting, than to all other causes.

Salem, 1855. C. A. S.

Remarks.—Hundreds, thousands of evergreen trees have been planted by rules we have given, and have flourished finely—they are rules common to all who understand the matter. In one instance several hundred evergreens were set by the same person, by our rules, and *not one in a hundred* died. One of the rules you give, is "not to prune too much." We should consider the case very rare where a young evergreen would need *any* pruning. We hope more attention will be paid to transplanting trees which add so much to the beauty of our homesteads.

For the New England Farmer.

PROFITABLE CULTURE.

An industrious laborer, who cultivates with his own hands his own lands, has just informed me that he sold 125 barrels of onions, at $4,25 per barrel, delivered at his own cellar. These onions grew on about two-thirds of an acre of ground.

Amount of sale	$531,25
Deduct cost of culture, &c.	131,25
Nett profit	$400,00

Pretty well for a small concern. J. W. P.

March 23, 1855.

HE NEVER TOLD A LIE.

Once there was a little boy,
With curly hair and pleasant eye,
A boy who always spoke the truth,
And never, never told a lie.

And when he trotted off to school,
The children all about would cry,
There goes the curly-headed boy,
The boy who never tells a lie.

And every body loved him so,
Because he always told the truth,
That every day, as he grew up,
'Twas said, "There goes the honest youth!"

And when the people that stood near,
Would turn to ask the reason why,
The answer would be always this—
Because he never tells a lie.

For the New England Farmer.

ABOUT TURKEYS.

Mr. Editor:—I was quite glad to see your remarks two or three weeks since on raising turkeys—and am more than half inclined to give you a bit of my experience in that business, with a few observations. Several years ago, I purchased two turkeys thinking I would try my "luck," as the saying is, and see what I could do with them. Well, the first year they hatched out about thirty-two young. I shut them up in the barn, and fed on dough and cheese-curd. I soon found that this did not agree with them, as they began to grow sick and die off. On pleasant days I let them run out in the warmest part of the day, but they did not improve much. I then made a large and roomy coop, and kept them in a while, but they did not seem to thrive then; and after "bothering and fussing" a good deal with them, and losing a good many, I concluded to let them go and take their chance, and I did. They soon began to mend and to grow finely. I lost two or three more in the course of the season. In the fall I had about twenty good fat turkeys for the market, which averaged me nearly a dollar apiece. I have kept two over every year since; I let them choose their nests where they please, and bring their young according to their own fashion, giving myself but very little trouble about them not even feeding them. I think they succeed much better to be let alone; I have usually had about twenty turkeys every fall. About a fortnight before I want to kill them, I shut them up and keep corn, oats, lime-water, &c., by them, and let them help themselves. Of course they come out "fat and sleek." I have them weigh from six to eighteen pounds apiece. They average me about one dollar each. Now I cannot tell you just how much profit I make, but I think I can raise twenty dollars' worth of turkeys cheaper than I can that amount of pork. The only expense to me is in feeding to fatten, and in keeping the breeders over; they will take care of themselves, as soon as warm weather comes, till cold weather comes again. It is natural for them to roam about, and they can generally find something to suit their taste in the numerous bugs, worms, &c., that infest every nook and corner of our farms; and for two or three years past, they have revelled in grasshoppers. There is nothing on which they thrive so well. When they have been out grasshoppering awhile, they will not touch corn if thrown to them. I think it worth a good deal to a farm when grasshoppers are thick, to have a flock of turkeys to thin them out. I think it would pay to keep them, even if we did not get their good "fat haunches" to eat. Many times have I seen a flock of turkeys march over a field thick with grasshoppers, with almost the regularity of soldiers in file, and then back again—not in the same track, but beside the first—thus culling the field with the regularity of a mower. It is curious and interesting to observe their operations. Isn't it a sight that will set an epicure's stomach into peculiar gastronomic *twitterations*, to see a flock of large, fat and sleek turkyes perched upon the wall, or strutting round making observations,—ever and anon making the air vocal with toot-toot-toot—gobble-gobble-gobble. Yours, J. T. W.

Marlboro', N. H., March 20, 1855.

For the New England Farmer.

HOME-MADE GUANO.

MR. EDITOR:—On page 253 of the monthly *Farmer*, for 1854, may be found an inquiry from me, and your answer, concerning the mode of preparing and using the manure of that much neglected portion of farm stock, viz., the hens. I saved and used a small quantity, applying it to corn, potatoes, peas and vines, with satisfactory results.

It was prepared with muck, dug the autumn previous, half and half, and put in direct contact with the seed, vines excepted. On corn I found it, applied at the rate of a large handful to a hill, to be two-thirds equal to a shovel full of yard manure. For potatoes I think it good, though not near so valuable as for corn. It gave mine an early and vigorous start, but the drought affected them more, on account of their being more forward than the other crops, they all being late planted. For peas I consider it a valuable manure. It gave them an early and vigorous start, and is, in my opinion, manure enough for them, applied at the rate of a bushel to a double row of ten rods long. On vines I consider it useful, but it ought to be well covered with earth before dropping the seeds. I did not cover mine at first, and they came up very poorly. I then planted over again, mixing the soil and manure intimately, and they came up well.

Thus you have the results of one year's trial with this available source of *home-made* guano. More experiments may confirm or change the above opinions. I do not claim any thing reliable for them, further than that it is a *valuable* manure, and ought to be improved by all who keep fowls, even in small numbers.

The coming season I intend to mix as before, and add one bushel of ashes (dry) just before using, and cover well with loam. The manure ought to be thoroughly pulverized before mixing with the ashes. The muck ought to be strown under the roosts, a little at a time, and as often as once a week. A quantity of plaster would not be lost if strown under the roosts weekly. If others have tried the "home-made guano," shall we not hear from them? S. TENNEY.

West Poland, Me., March, 1855.

THE WAY WEEDS MULTIPLY.

The *Gardener's Chronicle* enters into a calculation to show the rates at which weeds multiply:

"The common groundsel ripens about 52 seeds in each head of flowers; and produces about 40 heads or 2080 seeds. The dandelion ripens about 135 seeds in a head, of which it produces about 2740 seeds. The sow-thistle ripens about 280 seeds in each head, and produces about 38, thus yielding 11,040 seeds per plant. The annual spurges form about 180 seed-vessels, each containing three seeds, and therefore produce 540 seeds per plant. These are, as we have said, very low averages.

Now according to this calculation—

1 Groundsel,	2,080	16,400 plants.
1 Dandelion,	2,740	
1 Sow-thistle,	11,040	
1 Spurge,	540	

which will cover just about three acres and a half of land, at three feet apart. To hoe land costs, we will say, about 6s* per acre, so that allowing four such weeds to produce their seed may involve an expense of a guinea. In other words, a man throws away 5s. 3d. as often as he neglects to bend his back to pull up a young weed, before it begins to fulfil the first law of nature. We know that some well-fed folks object to all inflection or deflection of the vertebral column—they are generally fond of hard words—but then they also object to its being considered in their wages, which is not exactly fair.

Let us look at the foregoing data in another point of view. Every dandelion left to flourish unchecked may plant an acre of ground 4 feet apart; every sow-thistle may do the same two feet apart; every groundsel five feet apart, allowing for waste. Supposing a garden to consist of two acres, 16 dandelions, or four sow-thistles, or 21 groundsels, or 80 spurges, will cover it with a crop a foot apart. Taking this calculation in their hand, we recommend everybody afflicted with weeds, or with a gardener whose vertebral column will not bend, as aforesaid, to count the dandelions, groundsels, sow-thistles and spurges upon the first square rod of ground they can measure off.

Seriously, this forgetfulness of the consequences of allowing weeds to seed is a fault of the first magnitude, the more inexcusable, because no skill is required to remedy it; nothing whatever, except industry and foresight is demanded.

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* The shilling spoken of is about 25 cents.

DOWNFALL OF A COMPOSITE HOUSE.—Last fall a Mr. Cozzens, of Brookline, commenced a composite house of cobble-stones and mortar, nearly finishing it. He postponed further work upon it, to allow time for the walls to become hard, and was intending to go to work this morning to finish it for occupancy. Last evening, as two gentlemen were examining the walls, and admiring the elegance of the structure, and its cheapness and durability, the walls suddenly crumbled, and the whole building came down so rapidly that they escaped with difficulty from being buried in the ruins. It appears that the recent warm weather had driven the frost from the walls, and that being the only cohesive power in the composition, down they came, in a manner that has somewhat cooled the ardor of persons afflicted with the "Cobble-Stone Fever."—*Herald*, *9th.*

EXTRACTS AND REPLIES.

HOW TO DESTROY CATERPILLARS.

Mr. Editor:—Take strong soap suds—that in which clothes have been washed will answer—provided it is strong—and a pole long enough to reach the tops of the trees, and tie a bag of woollen rags on the end of it; then dip the rags in the suds, and hold directly over where the young worm has just made its appearance and begun to spin its web; as soon as the suds touches them, they will die instantly. This remedy is equally effectual for currant and gooseberry bushes and other shrubbery infested with these pests.

Middletown, *Vt.*, 1855. J. H. Roberts.

A FINE HOG.

Mr. Editor.—Being a reader of your excellent paper, and noticing statements of your correspondents relative to large cattle and large hogs, I send you the age and weight of a hog which we slaughtered last week. Age 21 months 22 days; weight of round hog after hanging eight and forty hours, 754 lbs.; rough fat, 35 lbs.; estimating the shrinkage at 11 lbs. for the time of hanging, (it being very cold) would make the whole weight 800, being a gain of 1 7-33 lbs. a day. If any one beats this, we will try again. Breed, half-blood Suffolk. S. & R. Farnsworth.

Lyme, *N. H.*, *March* 7, 1855.

WASHINGTON ROYAL APPLE.

Mr. Editor:—I send you a specimen of apples that I have raised six years. I cut the scions from a seedling tree on the farm of Mr. Joseph P. Hayward, in Sterling. He says he opened a barrel of this kind of apples on the first of June, and they were as fresh and fair as they were when they were put up, and there was not more than one peck of defective ones in the barrel.

I find the trees to be very prolific bearers. The fruit is in eating from October, and it has been submitted to many of the best judges of fruit, and they pronounce it one of the best kind of apples that has been offered to the public.

I have given it the name of Washington Royal.

Ephraim Robbins.

Leominster, *March* 19, 1855.

Remarks.—We have just eaten one of the apples alluded to above, and pronounce it most excellent. They not only taste well, but are "goodly to behold." Above medium size, flattish-round; yellowish-green, with numerous small gray dots, and a clear red in the sun. Calyx in a broad basin, stem slender, and half an inch long. It is a valuable variety. See advertisement.

OSIERS.

What is the weight of the crop of osiers the first, second and third year from planting? I am about planting a few acres and wish for all the information possible before I am fairly in the season for it. Will some one please reply who has the means of knowing? G. F. Nutting.

CARROTS AND WATERMELONS.

What is the best time to sow carrot seed, and the best kind to sow? (*a.*)

I should like to know how the ground should be prepared so as to yield the greatest amount at the least expense. (*b.*)

I wish to know how to raise watermelons by any way to secure a good crop without fail. (*c.*)

I wish to inquire if any of your subscribers have succeeded in raising pears from scions set on the mountain ash or thorn stocks. If so how long-lived were they? (*d.*)

Observer on the Farm.

Oakham, *March* 19, 1855.

Remarks.—(*a.*) Sow carrot seed as early in April as the ground is warm and mellow. They will do well sown in May if the seed comes up promptly. The orange carrot is generally cultivated; the white carrot brings heavy crops, but does not seem to be a favorite yet. Then there is the long red and the Altringham. The latter we have raised, but found no qualities to recommend it more than are found in the orange carrot.

(*b.*) To secure a good crop of roots of any kind, the soil should be deep and fine. Sixteen inches deep, will be found very favorable. Then manure it well, and tend thoroughly, and you will produce a crop in the *cheapest* manner.

(*c.*) Watermelons love a high and dry soil; we have known them to grow luxuriantly on a sand-bed where weeds of all sorts had refused to vegetate. Manure with old compost in the hill. The product can be wonderfully increased by placing a shovel-full of good loam over the places where the vine branches and pressing it down—new roots will start out and impart great vigor to the whole.

(*d.*) Pear trees will grow on the mountain-ash or thorn, but we think it better to engraft on the quince for the earliest supply, adding annually a tree or two on its own roots.

RYE GRASS AND LUCERNE.

Mr. Brown:—Will you be kind enough to publish in the next number of the *N. E. Farmer*, the qualities advantages and difference between rye grass and lucerne; their uses, and best mode of cultivation, and the quantity of seed to an acre. S. H. Collins.

Locust Lawn, *New Albany*, *Ind.*

Remarks.—Lucerne is an artificial grass, stems erect or somewhat reclining, and about two feet high. The leaves are oblong, inclining to wedge-shaped, more or less acute, sharply serrated towards the end, clothed with close, silky hair on both sides. The flowers are in clusters, many, and bluish-purple. It is best adapted to a good, dry, warm soil, and will not flourish well on heavy wet soils. It is a deep-rooted plant, and requires a deep soil. It should be sown just as soon as the ground can be made ready, and ought to be without a crop of grain, in drills, 12 to 16 inches apart, and with from 10 to 16 pounds of seed per acre. By careful weeding and hoeing, the crop may be cut three or four times annually, for a period of eight or ten years—the first cutting occurring in April. A gentleman in Maine tried it several years since, and says he sowed it the last week in May; the last week in July it was 18 inches high on an average, and much of it had blossomed. Hogs and milch cows ate it voraciously. In *four* weeks from the time it was cut a second time,—and on the first of November it had grown to nearly the same height as before, and was cut a third time—the crop being heavier than either of the preceding. A piece of common red clover (very flourishing) immediately adjoining the same, did not yield nearly half as much, in proportion, as the lucerne. It is undoubtedly a capital plant for soiling, and will prove profitable on favorable soils. It is not so good for hay as for green fodder, especially if allowed to blossom, the stems becoming dry and hard.

Of the rye-grass there are numerous varieties, but the perennial rye-grass (*Lolium perenne*) is the only one not set down in an English list of the most useful species and varieties of the grasses. Buel set it down as a grass generally esteemed. It is said that it is one of those plants which impoverish the soil to a high degree. It produces an abundance of seed, and produces in its first year of growth a good supply of herbage, which is much liked by cattle. There is, however, much difference of opinion respecting the merits and comparative value of rye-grass. One peck of rye-grass seed, with 14 pounds of clover, per acre, is generally considered sufficient for sowing pastures.

HOW TO APPLY MANURE.

MR. EDITOR:—I have one-half of an acre of ground that was broken up last fall; it consists of a sandy loam. I wish to cultivate upon it this season, Chenango potatoes, fodder corn, crookneck squashes and beans, and wish to know how to use my manure that I get from one horse and cow? Shall I plant in the hill, or otherwise? Last year I planted a piece similar to this with the same materials, and I did not get my seed back again; I had healthy vines, but nothing underneath them.

Which corn is best for fodder?

Yours with respect,

Malden, 1855. E. W. B.

A WORD ON CORN PLANTERS.

In a late number of the *Farmer* I find pictured in the hands of an intelligent-looking man, one of the *patent hand corn-planters*. He is evidently making his first experiment, for I see a smile on his face, which, perhaps, *may* not appear at harvesting. One word about these planters. We are not informed how near together the kernels must be in order to drop into the space made for them. But in the manufacturers' advertisement we are informed that "The closeness of the stalks in the hill is necessary for close cultivation."

How often we have been told in agricultural papers, that the seed should be spread at least four inches in the hills, that no stalks should be left within three or four inches of another. We have been told, and I *partly* believe it, that the plants choke and crowd each other and make a more stunted growth than they otherwise would. The wind is much more likely to blow it down, and when it is harvested, extra labor will be found to result from this "closeness of the stalks in the hills."

I infer from the planter above referred to, that it is nearly akin to one patented by Charles Dana, Esq., West Lebanon, N. H., and which is now being sold through this State by interested agents.

If we can have a corn-planter that will give us the proper space between the plants, and yet have them spread, we may practice as "close cultivation" as possible, and yet save the injurious results of "closeness."

This is already gained in the horse-planter by Woodford, of Haverhill, N. H., whose machine works with a facility and accuracy excelled by no machine yet invented for the purpose. The corn is carefully dropped in close furrows in the centre of a space 15 inches wide, made perfectly smooth, and all sods or loose stones removed by the machine. On the seed, a quantity of ashes, plaster, or any concentrated fertilizer is dropped, and the whole thoroughly covered.

By this method of planting 8 to 10 acres may be planted in a day, and yet the seed sufficiently spread. The cultivator may be run as near the plants as the operator may wish.

I will add further, that I have an improvement on the above planter, by which the operator may plant corn and beans alternately, and without mixing the two, putting the ashes on the corn and not on the beans, or the plaster on corn and beans both.

For the benefit of those who are in doubt about the operation of the various planters in the market, I write hoping to draw remarks from others concerning "closeness in the hills," and such ideas as may be connected therewith. G. F. N.

CHEAP FENCE.

In reply to inquiries concerning the Green fence mentioned in the *Farmer* of April, 1854, I can only say that the proportion is about 16 oz. of blue vitriol to 4½ or 5 gallons of water. The time required, and the amount of vitriol absorbed by the process, will depend upon the degree of heat applied, and the kind of wood used for stakes. Green timber will kyanize much quicker, and should soak two weeks in the summer heat, or in a hot bath two or three days. The vitriol should be added to keep the liquor of proper strength, and must be left to the operator to judge for himself by appearance.

Any one passing through Windsor, Vt., will notice this fence in abundance and perfection.

G. F. N.

GRAPES.

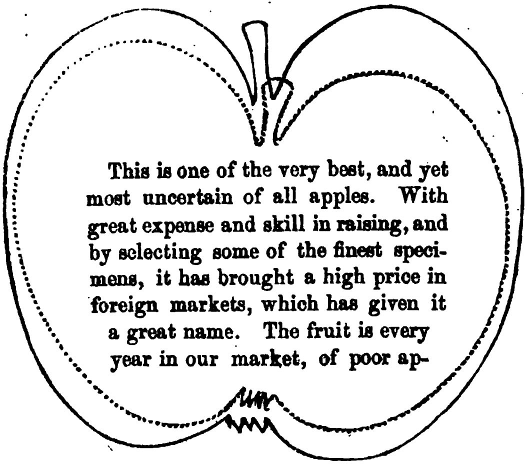
The *Concord*, a large, early, pleasant grape has just been introduced in the vicinity of Boston, and promises to be an acquisition, especially where the Catawba and Isabella ripen with difficulty.—*Gardener's Companion*.

PLOWING SANDY SOILS.

Spring plowing for sandy soils is preferable to fall plowing: for although the plowing of clay soils, including ridging and back furrowing, may be done profitably in the fall, the same practice is not advisable with those of a freer kind. The freezings and thawings of winter will materially improve clayey soils, by rendering them more free from the disintegration of particles, division of masses, etc. Sandy soils, however, should be left undisturbed until spring, by which means they are less liable to be disturbed by high winds, freshets, etc.

No error is more common than to suppose that sandy or gravelly sub-soils render sub-soil plowing useless. On the contrary, the continuous descent of water from the soil will so compact both the sandy and gravelly soils, as to leave them difficult of penetration by roots, and when they are of such character as to render it injudicious to bring them to the surface by deep surface-plowing, we may at least follow in the same furrow with the lifting sub-soil plow, which does not turn the soil, but will disintegrate it to a great depth, with the expenditure of but a small amount of force. In this way sandy soils become ærated, and from the decay of roots passing deeply into them, they are gradually supplied with organic matter so as to improve their general condition. This disturbance, however, should occur in spring; thus they are less compact during the growing season, and become stiffened during winter, rendering them more practicable in their character by spring.—*Working Farmer.*

THE NEWTOWN PIPPIN APPLE.



This is one of the very best, and yet most uncertain of all apples. With great expense and skill in raising, and by selecting some of the finest specimens, it has brought a high price in foreign markets, which has given it a great name. The fruit is every year in our market, of poor appearance, and selling at common prices. One Baldwin tree, of the same age, will outweigh four of them, and out-bear five or six of them, in good fair fruit. It generally fails in New England; in some favorable situations in the Middle States, and in some parts of the West, it succeeds well. It requires a warm, deep, strong, friable loam, neither wet nor dry, lime in the soil, or manure, and the highest culture.

Some pomologists reckon two kinds; others think there is but one, modified by various circumstances. The *Green* (dotted outline) is flattish-conical; stem, short, deep cavity; smooth, olive-green. The *Yellow* (the larger outline) is flattish-round, angular; stem short, rather deep cavity; rough, yellow, or greenish-yellow, brownish or red cheek. We have seen another form and color. Roundish-conical, very deep cavity; smooth, wax-like, pale yellow, bright red cheek.

The Newtown Pippin is of medial size; flesh fine, firm, crisp, juicy, of a rich, sprightly, high aromatic flavor and aroma. Remarkable for retaining its freshness to a late period. Late winter, spring, and to mid-summer. A slow, scrubby grower; moderate bearer. Fruit inclined to be defective under the best management. Origin, Newtown, Long Island.—*Cole.*

Water Proof.—A correspondent of the *Merchant's Magazine* gives the following receipt for the prevention of wet feet, and adds that by subjecting his boots to this treatment three pairs have lasted him six years, and are likely to last six years longer. He says:

I put a pound of tallow, and half a pound of rosin in a pot on the fire; when melted and mixed, I warm the boots and apply the hot stuff with a painter's brush until neither sole nor upper leather will suck any more. If it is desired that the boots should immediately take polish, dissolve an ounce of wax in spirits of turpentine; to which add a teaspoonful of lampblack. A day after the boots have been treated with the tallow and rosin, rub them over with wax in turpentine, but not before the fire. Thus the exterior will have a coat of wax alone, and shine like a mirror. Tallow, or any other grease becomes rancid, and rots the stitching as well as the leather; but the rosin gives it an antiseptic quality—which preserves the whole. Boots and shoes should be so large as to admit of cork soles. Cork is so bad a conductor of heat, that with it in boots, the feet are warm on the coldest stone floor.

For the New England Farmer.

SALT LEY.

MR. EDITOR:—Your correspondent from East Hartford, Ct., in the *N. E. Farmer* for Jan., 1855, wants information in regard to an article made by the hard soap manufacturers, and called by them in the vicinity of Boston (as well as Hartford) *salt ley*. Having used many scores of loads of that article, within the last eight years, separately as well as in connection with night soil, I am able to reply to the questions put by "J. R. S."

First, let me say, that a scientific and observing neighbor who has a few acres of meadow he wished to lay down to grass in a manner best calculated to be lasting, and also wishing to know for a certainty whether *salt ley* was as economical (at the same cost per load) as night soil, placed two heaps of loam upon the borders of his meadow, containing about five cords each, and added five loads of 80 cubic feet each of ley, to one heap, and the same of night soil to the other. After causing the same to be thrown over until well incorporated, he divided his land equally in two parts, and spread the compost, sowed his grass seed, harrowed, and then rolled the surface with a heavy roller The first year the result was decidedly in favor of the night soil; the second they stood side by side; the third, the difference in favor of the *ley* was more than equal to what it lacked the first, while its effect was very apparent long after the night soil had spent itself. This experiment as well as some of my own of a similar character, satisfied me that *ley* is very permanent and valuable as a fertilizer, when properly incorporated with meadow muck for upland. When it is spread upon grass land, it is sure to bring in a large amount of honey-suckle or white clover, which is the same thing.

If used for *corn* it should be spread and plowed in, as it will be apt to kill the corn if allowed to come in contact with it. I believe it superior to any other manure for other potatoes, as it keeps the worms from troubling them. It may be used for any purpose that any manure is. It is the best for sandy land as it holds the moisture and prevents in part the consequences of a drought. One cord of meadow muck, if fine, is sufficient to absorb one load of 90 cubic feet. And if the ley is good (for some is nearly worthless, being made of lime and soda instead of ashes) is equal to a cord of *stable manure*. Pile up the muck and run the ley into the basin on the top, and be careful that it don't work out at the sides and waste, as it is more likely to than night soil or any other liquid manure. It should be thrown over and well incorporated, as it will be apt to work through the loam or muck, and waste if that is not attended to soon. R. W. TURNER.

Newton Centre, Jan. 16, 1855.

ROOT CROPS.

Much of the success of root crops depends upon their early treatment. Those that germinate slowly, such as the carrot, should have the seed swollen, by burying it in the soil for a few days encased in a bag before sowing, and when being sown, small quantities of radish seed should be mixed with it. The radish seed will mark the rows at an early date, so as to enable proper tools to be passed between, and remove the weeds even before the carrots shall appear above the surface of the ground.

All light scaly seeds should be planted within half an inch or less of the surface, and if not shaded by the radish leaf will bake from the sun's heat, and refuse to germinate, unless previously swollen.

The early attention by disturbance of the soil for carrots, parsnips, beets, &c., is positively necessary to insure success. Careless culture in the early part of the season will materially injure the crop.

We should not wait for weeds to appear before disturbing the soil, but by frequent stirring we may prevent their growth altogether until the roots shall have fairly started, and are in full possession; then an occasional stirring by the Horse Hoe or any of those tools lately introduced by Ruggles, Nourse, Mason and others for cleaning the surface of soils, so that the entire strength of the soil and all the atmospheric advantages may be applied to the crop.

We raised last year, by such treatment, 1500 bushels of parsnips, and nearly or quite a thousand bushels of carrots per acre. When guano or the phosphates are used, the application should be in small doses, and at each disturbance of the soil. The results will be much greater than when all are placed in the soil before the planting of the seed; for in its slow downward travel by solution when applied after the roots are partially grown, the manure may come in contact with the young spongioles ready to receive it. If the manures are all applied in the rows instead of between the rows, the roots become hairy and roughened, but when more generally disseminated through the soil they become evenly divided by moisture before reaching the roots. The great increase in demand for root crops will fully warrant their increased culture.—*Working Farmer.*

THE SEASON.—A correspondent writing from Kennebunk, Me., April 8, says—"the sledding has been very good here until to-day." In the neighborhood of Boston the frost is not yet out,—manure heaps carried out last fall, are still frozen; post-holes cannot be dug, or very little spring work done. It was refreshing this morning to see the first team and plow in motion. The *Weston* people deserve the premium. From Randolph, Vt., under date of April 2, we learn that the snow was then four feet deep, great drifts still remaining, and no sugar had been made. From Dorchester, N. H., the account is that the snow in the woods on the first of April was six feet deep in many places.

For the New England Farmer.

THE NORTHERN SPY APPLE.

Mr. Farmer:—This new variety, which has attracted so much attention in Western New York, is little known in New England. No apple brought into notice has elicited so many and different opinions of its merits. What I said of it in a report to the American Pomological Society, re-printed in your paper, was intended as a caution to those planting or grafting extensively, rather than to deter any one from giving it a fair trial.

One reason why it has been so poor a bearer is, it has been extensively propagated from nursery scions. In 1846, I paid three dollars to a Rochester nurseryman for four dozen scions, which had been cut from small nursery trees; these were grafted on old bearing trees. Scions cut from them two years after, and grafted on bearing trees, first produced fruit.

Another reason why it is not an early bearer, is its upright growth. A person visiting an orchard of one thousand trees, containing one hundred varieties, and told there is one tree only of the Northern Spy, may easily select it. This may be partially remedied. I bent some of the most vigorous limbs on my trees and tied them down, when three years grafted, (in October,) and the next season they were filled with fruit buds—two years before a blossom appeared on any other.

It is a rapid grower, hardy, and requires high culture, with plenty of lime or ashes, and more thinning of its branches and small limbs than any other sort. In quality it is decidedly the *best*, taking the same rank in March, April and May, or perhaps June, that the *Gravenstein* does in October and November. One *bushel* will, in any market, when known to be in good condition, (not bruised by transportation,) sell for more than one *barrel* of any other sort grown in New England.

Any man having a small space to spare for a few trees, provided he likes an apple of fine texture, tender, of high flavor, unshrivelled, and as fresh in April or May as any other in October, will be satisfied if he gets but a small quantity for a few years. It is deserving a general trial, at least a few trees in every orchard. Should it prove a good bearer, (and it may when propagated by scions from bearing trees,) it must be a great acquisition to our *very small* list of *good* late-keeping apples, and *may* be for New England what the Newtown Pippin is for New Jersey.

Burlington, Vt., April. C. Goodrich.

Big Carrots.—Thomas Gordon, Esq., of Biddeford, Me., has sent us two carrots, one of which weighs *four pounds and three-quarters*, after having lost a goodly nip of its nether end. It probably weighed six pounds when taken from the ground. California will please stand back a little.

BIRDS.

Birds, says M. Toussenel, live more in a given time than any other creatures. For, to live, is not only to live; it is also to move, act, and travel. The hours of the swift, which in sixty minutes can reach the distance of eighty leagues, are longer than the hours of the tortoise, because they are better occupied, and contain a greater number of events. Men of the present day, who can go from Europe to America in little more than a week, live four times as much as men of the last century, who took a month to make the passage. People who are now fifty years of age have still a longer time before them than Michael Angelo and Voltaire had at that moment when they were laid in the cradle. Independently of birds thus enjoying more of life than all other beings in the same given number of years, time seems to glide over them without leaving a trace of its effects; or rather, time only improves them, reviving their colors and strengthening their voices. Age increases the beauty of birds, while in men it brings on ugliness.

A bird is a model ship constructed by the hand of God, in which the conditions of swiftness, manageability, and lightness, are absolutely and necessarily the same as in vessels built by the hand of man. There are not in the world two things which resemble each other more strongly, both mechanically and physically speaking, than the carcase and frame-work of a bird and a ship. The breast-bone so exactly resembles a keel, that the English language has retained the name. The wings are the oars, the tail the rudder. That original observer, Huber, the Genevese, who has carefully noticed the flight of birds of prey, has even made use of the metaphor thus suggested, to establish a characteristic distinction between rowers and sailers. The rowers are the falcons, who have the first or second wing-feather the longest, and who are able by means of this powerful oar to dart right into the wind's eye. The mere sailers are the eagles, the vultures, and the buzzards, whose more rounded wings resemble sails. The rowing bird is to the sailing bird what the steamer, that laughs at adverse winds, is to the schooner, which cannot advance against them.

The bones of high flyers, as well as their feathers, are tubes filled with air, communicating with a pulmonary reservoir of prodigious capacity. This reservior is also closely connected with the air-cells which lie between the interior muscles, and which are so many swimming-bladders, by aid of which the bird is able to inflate its volume, and diminish its specific gravity in proportion. In birds that are laden with a heavy burthen of head, Nature has interposed so decided a gap between skin and flesh, that there results an almost complete detachment of the skin. Consequently, they can be stripped of their coating just as easily as a rabbit can. In man and other mammifers, the blood, in the act of breathing, advances ready to meet the air; in birds, air enters to find the blood, and comes in contact with it everywhere. Hence an ubiquity of respiration and a rapidity of hæmatosis, which explains the untirability of the wings of birds. The muscles do not get fatigued, because they receive new vigor every second from the influence of the ever revived blood. A stag or a hare drops at last, when hunted, because its lungs, rather than its legs, are tired.

Between the different members of a bird's body there exists a sort equilibrium or balance, which prevents any one organ from obtaining undue development without another losing in the same proportion. Thus exaggerated length of wing generally coincides with very small feet and legs. Examples: the frigate-bird, the swift, and the humming-bird. Feathered feet and legs are mostly short, as in pigeons, bantams, ptarmigan, and grouse. Nature always contrives to economise out of one part of a bird's body the material which she has too lavishly expended upon another. Good walkers are bad flyers, and good flyers are bad walkers. First-rate runners and divers are deprived of the power of rising in the air. Half blind individuals, like owls, are astonishingly quick of hearing. Creatures clad in plain costume are recompensed by the powers of song. The lark and the red-breast, victim species (both being greedily eaten in France) have the gift of poesy bestowed upon them for their future sorrows.

The most exquisite sense a bird possesses is sight. The acuteness and sensibility of the retina are in direct proportion to the rapidity of wing. The swift, according to Belon's calculation, can see a gnat distinctly at the distance of more than five hundred yards. The kite hovering in the air at a height beyond our feeble vision, perceives with ease the small dead minnow floating on the surface of the lake, and is cognizant of the imprudence of the poor little field-mouse, as it timidly ventures out of its hole. All God has done and made, He has thoroughly well done and made. If He had not exactly proportioned the visual organs of the bird of prey, or the swallow to its dashing flight, the mere extreme velocity of the bird would have only served to break its neck. Partridges constantly kill themselves against the iron wires of electric telegraphs; and nothing is more common than to find thrushes and larks with dislocated vertebræ, when they fall into the large vertical net which is used in France by twilight sportsmen.

Perhaps, after all we have said and seen, the sense of touch is the most perfect in birds, and the organs of feeling are endowed with a subtlety of perception more exquisite than even those of sight. In fact, air being the most variable and unstable of elements, birds would be endowed by nature with the gift of universal sensibility, enabling them to appreciate and foretell the slightest perturbations of the medium they inhabit. In consequence, the feathered race are armed with a nervous impressionability, which comprises the different properties of the hygrometer, the thermometer, the barometer, and the electroscope. A tempest, which takes the man of science by surprise, has, long before, given warning to the birds of the sea. The noddies, cormorants, gulls, and petrels, know twenty-four hours beforehand, by means of the magnetic telegraph which exists within them, the exact day and moment when ocean is going in one of his great rages, opening wide his green abysses, and flinging the angry foam of his waves in insult against the forehead of the cliffs. Some birds are the harbingers of wintry storms; others usher in the advent of spring. The raven and the nightingale announce the coming of the tempest by a peculiar form of bird's expression, which they both seem to have borrowed from the vocabulary of the frog—a pre-eminently nervous animal, to whom the science of galvanism is greatly indebted. The chaffinch, in unsettled weather, recommends the traveller to take his umbrella, and advises the housekeeper not to be in a hurry to hang out her linen. Certain mystic geniuses have attributed this faculty of divination possessed by birds to some special sensibility, acquainting them with the actions of the electric currents that traverse the atmosphere, and accurately informing them of their direction. Nor is there any scientific argument which can be confidently opposed to such a theory.

After the organs of sight and touch, the sense of hearing comes next in importance. The delicacy of the auditory powers of birds is sufficiently apparent from the passion for vocal music which many of them manifest. It is an universally admitted physical law that, in all animals, a close and invariable correspondence exists between the organs of voice and those of hearing. Now birds, it will be seen, are the Stentors of nature. The bull, who is an enormous quadruped, endowed with an immensely capacious chest, does not roar louder than the bittern, a moderate sized bird which frequents our ponds. In Lorraine, they style him the bœuf d'eau, or "water-bull." A crane, trumpetting two or three thousand yards above the surface of the earth, pulls your head back just as violently as a friend who asks you "How do you do?" from the balcony of a fifth-floor window; while the thundering of Mirabeau, who should venture to harangue the Parisian populace from the top of the towers of Notre Dame, would run a great risk of not being able to convey a single word to a single member of his congregation.

Ascend in the air, by means of a balloon, in company with an old Atlas lion, whose formidable roaring once struck terror throughout Algerian wilderness; and, when you have risen only half a mile, make your travelling companion give utterance to the most sonorous of his fine chest-notes. Those will spend themselves in empty space, without descending so low as the earth. But the royal kite, floating another half mile above you, will not let you lose a single inflexion of his cat-like mewing, miniatures though they be of the lion's roar. "It is probable," says Mr. Toussenel—M. Toussenel is always speaking through our humble interpretation—"that nature has expended more genius in the construction of the larynx of a wren or a nightingale, than in fabricating the ruder throats of all the quadrupeds put together."

Smell and taste are but feeble in birds; and they have no great occasion for either sense. A bird's appetite *must* be enormous, in order to supply the animal heat necessary for the maintenance of its superior nature. A bird is a locomotive of the very first rank, a high-pressure engine, which burns more fuel than three or four ordinary machines. "Animals feed, man eats," says worthy Brillat Savarin. "Clever men alone know how to eat properly." This strictly true gastrosophic aphorism is more exactly applicable to birds than to quadrupeds. Birds feed to assuage their hunger and to amuse themselves, not to indulge in epicurism. They fatten through sheer ennui, and for pastime's sake, rather than through any ambition of "cutting up fat." The task, moreover, assigned to them, is to destroy the innumerable seeds of weeds, [which they do in a larger proportion than the protected seeds of human food,] and animal and insect vermin, which would soon annihilate the labors of man, did not certain species of birds feel an incessant craving to devour them. Birds have no nose for the same reason that they have no palate. It is not necessary that creatures, destined to eat everything without making wry faces, should have posted in front of their stomach, as we have, a vigilant sentinel, who is troublesomely cautious who and what he allows to enter the fortress. All, therefore, that has been said about the fine scent of the crow and the vulture, who snuff gunpowder and corpses at incredible distances, is simply absurd. There is an excellent reason why crows should *not* smell gunpowder; namely, that gunpowder is scentless until it is burnt, (we venture to doubt this statement of fact; having a decided personal nose for the saltpetre.) If crows *could* perceive that perfume, it would attract them, instead of driving them away. Crows and vultures are carrion birds, who love, above all things, the treat of a battle.—*N. Y. Churchman's Magazine.*

THE SWEET POTATO.

An inquiry in relation to this delicious esculent, by "G. S. P." of Bethel, Vt., reminds us that many people would find it convenient, and would be glad to cultivate a few rows, sufficient, at least, for their own table through the autumnal months. We have raised them successfully for several years. They are not quite so sweet, or so yellow, as those sent here from the South, though our crop in 1853 afforded very fine ones, both in color and flavor.

Some four or five years ago we had a correspondence with Mr. Timothy A. Bascom, of Hinsdale, N. H., on the subject of the sweet potato, who presented to us in April a box of them sound and pretty good at that time,—but not with their full flavor.

As in the common potato, there are many varieties of the sweet—the Mississippi yam is considered the best. It would be cheaper for those wishing to plant only a few, to purchase the slips, as they may always be obtained at the proper season, of Rand & Co., 110 Quincy Market. Those who desire to cultivate more extensively will find the following directions convenient. Plant the potatoes in a common hot-bed, and cover two inches deep with fine loam, and they will come up in two or three weeks, and when two and a half inches high they will do to set out. In collecting the sprouts place one hand on the potato to keep it steady, and cut out the sprout with the thumb-nail, or pull it out; the potato will continue to furnish them for three or four weeks. Half a peck of potatoes will furnish sprouts enough to bring a dozen bushels of potatoes.

It is early enough to set the plants by the first of June. Place them in drills a foot apart, a little deeper than they stood in the hot-bed, leaving the drill a trifle dishing. If the weather is dry and warm at the time of setting, water them for a few days.

The ground should be plowed or spaded a foot deep, well manured, and thoroughly pulverized. Some persons throw two furrows together, but in our hot and dry summers, we think such a practice injurious. The soil best adapted to this root is a warm, sandy loam, though it will grow on any soil that will bring a good crop of corn. The cultivation should be careful, keeping all weeds out, and the soil constantly loose. The vines run, like cucumber vines, so that the hoeing must be done early. Care should be observed not to leave the vines covered with earth, as in that case they will take root and prevent the growth of the first setting. Some persons forcibly tear up the vines where they have attached themselves to the ground, in order to throw the vigor of the runners into the main roots. The crop is fit for gathering when the tops decay.

In harvesting, great care should be observed not to bruise the potatoes by throwing them together, or in any other way, as a slight bruise will engender decay. The leaves of the vine are quite handsome, being large, smooth, and generally three-lobed.

The potato is used boiled, baked, is excellent in making bread, and makes a pie nearly or quite as good as the squash. It has a peculiar, agreeable flavor, and is called easy of digestion, is wholesome and nutritious.

The recipe for making pies of the sweet potato is as follows:—Boil soft, peel and mash them. To every quarter of a pound, put one quart of milk, three tablespoonfuls of butter, four beaten eggs, together with sugar and spices to the taste.

Mr. Bascom informed us that the sweet potato is a good crop for milch cows,—that they are very fond of them, and that he can obtain a larger amount of them than of any other potato on the same quantity of ground.

POTATOES.

A large quantity of European potatoes were sold a few days since by auction, in New York, and at a price which would pay the foreign farmer a very large profit beyond the cost of freight, etc., and this, too, in a country where they might be produced at less than the freight paid by the foreign farmer. Every year since our childhood, we have heard farmers say that they feared potatoes would be low next year, as everybody would be raising them in consequence of the high prices; and thus far has prevented a full supply being grown, particularly during the last few years, when the extra crop required each year for the consumption of the half million emigrants, has been a million and a half of bushels beyond the requirement of the previous year, and which, at the average crop of 100 bushels per acre, would require 15,000 acres of land for their culture. This is not only true of potatoes, but of other roots, the consumption of which is not only increased from the same cause, but from our own citizens becoming convinced that a large appropriation of vegetable diet is conducive to health. The farmers and livery-stable keepers are also feeding roots more liberally to cattle and horses, and as a consequence, carrots are now sold readily in the New York market at fifty cents per bushel; and even parsnips and ruta-baga turnips bring prices equally large, as compared with those of former years.—*Working Farmer.*

For the New England Farmer.

SETTING ORCHARDS.

Mr. Brown:—Spring is at hand; and many of your readers are planning to set out fruit trees this season. How can they invest a few dollars better than to buy twenty, or fifty, or more, trees, and choose a good place to set them, and get them growing as fast as possible. What "marketing" costs less than the piles of great apples so speedily gathered from the bending trees? Folks talk of potatoes being a profitable crop,—they are, but apples are more profitable. There is little danger of there being a glut in the market for apples. The demand more than keeps pace with the supply. Better apples are called for in unlimited quantities. Some that have raised apples in a slovenly manner, have been discouraged by the prices obtained. They have almost shovelled them into dirty, mean barrels, and because they have had to sell them to poor customers at a low figure,—0, apples are not worth raising. The better way is, to be liberal with the trees. Give them something to live upon. Don't be afraid to in plow manure about them. It is better than to pile up a lot by the trunk to dry up and feed insects. If you think to raise a good crop of grass under your trees, you will injure the fruit very seriously. Tree roots want a mellow soil *to themselves*, and no obstruction from grass.

The easiest way to manage an orchard is to have it *the cultivated field*—the place to raise the potatoes and corn and vines. It should be on good land, accessible from the house readily, not hilly, and so situated that it might be easily overlooked. If trees are set on good land, they will make a handsome growth without having so much good earth carted about them. An orchard near at hand will be better protected from vagrant animals,—four-legged and two-legged. If you are to be robbed, it is desirable to see how it is done!

Every year thousands of trees are thrown away by being stuck down in grass land. When are people *all* to know, that such an expenditure is the sheerest folly? Suppose the trees are dug around. Soon the grass gets up again;—it is difficult to get around to the trees, and they come to the general stand-still. But suppose they do just live, and perhaps, grow an inch or two? A tree had better be dead than drag out a sickly existence. You want new shoots of the real thrifty color to burst out with unmistakable energy.

I wish, Mr. Brown, that all your readers could see my neighbor Goodman's orchard in Autumn; trees all in straight, handsome rows; thrifty crops growing among them,—and a team going to market with the abundance which seems to have no end. W. D. B.

Concord, Mass., March 23, 1855.

STAY WHERE YOU ARE.

In the West we have met with persons possessed of a *mania* for clearing land. As long as their farms afford unlimited opportunities for chopping down huge trees and burning up huge logs, they work away with the ardor of passion; but the moment they have made their farms tillable and their houses inhabitable, they take no further interest in them whatever, and are eager to sell out and plunge deeper into the woods to ply again the axe and the brand. Thus the country is cleared rapidly; but the blood of the people is fevered, and the passion for change continues after the good done by it has been accomplished.

The necessity for a rapid clearing of land has ceased. We have cleared faster than we have appropriated. The Eastern and Middle States present an expanse, almost unbroken, of half-cultivated land, dotted with unattractive homes. A large number—probably a majority—of those who occupy those homes are, at least, *willing*, if they are not desirous, to sell their farms and try their fortune in a newer region. They know that the burden of life is heavy to be borne where they are; they hope it will be lighter somewhere else. They forget that the life of *no* honest man is easy. They omit from their calculations all the unseen and spiritual advantages of a permanent residence. They overlook the fact that the real nutriment of a tree or a man flows in from the minute tendrils of the root, scarcely visible to the eye, which a removal rudely tears away. They have neglected to make their homes charming, by planting the ornamental shrub, the shading tree, the beautiful flower. They have not enlisted in their corps of co-operators the next-to-omnipotent aid of Science, nor bound themselves to the fields they till by the interest of varied, intelligent Experiment. They do not know that new lands, though they give a large increase, yet draw large tribute from the men who go to live upon them. The forest and the prairie do not yeld without a struggle, nor without imparting some of their wildness to their conquerors. It is a game of Give and Take between civilized man and wild nature.

To most men, over twenty-five years of age, who have a footing upon their native soil, we believe the advice is good. Stay where you are, and determine to stay as long as life lasts! Persevering toil, guided by a thinking head and ennobled by a worthy purpose, *will* reduce the mortgage by degrees, and beautify the old home, and fertilize the sterile field, and drain the too fertile marsh, and convert stones into stone-fence, and make the farm the pride of the township and the delight of its owner. Stay where you are, and try it! There are those who should remove—the young, the strong, the uncapitaled, the one-too-many in a family. But, if possible, such should remove but *once*, seeking not a stopping-place, but a permanent home, in which, and around which, all that is best in their natures may gather and centre.

Would that we could whisper it convincingly into the ears of nine-tenths of our restless, roving fellow-citizens, Stay where you are !—*Life Illustrated.*

For the New England Farmer.

HINTS FROM THE CLASSICS—No. 1.

BY SAMUEL T. READ.

It is an idea among the agriculturists of the present day, and perhaps an idea which in a measure removes incentives to improvement, that their profession is in a higher state of perfection than ever before. This, however, is a decided mistake. For considering the advantages derived from the other arts, our skill in husbandry is rather upon a retrograde. We have our elaborate treatises upon this subject, (oftentimes too elaborate for practical assistance.) We have implements, the products of years of studious ingenuity; but, still, Agriculture has not kept pace with the other arts, in the rapid strides of energetic progress. If we turn back the pages of history 1900 years, we find in the village of Mantua, a short distance from Rome, a Mantuan shepherd writing the best dissertation on husbandry ever produced—an essay replete with wisdom and apt maxims—a work, which to-day stands forth, defying the world for an equal. There is scarcely a principle which is now applied to Agriculture, to which this does not allude, and on the other hand there are a great many, of paramount value comprised in it, which now, are scarcely known and practiced at all.

Some of its maxims, especially, are so apt, and so worthy of reflection, that I propose spending a few contemplations upon them, as time will permit.

The shepherd was not slow to perceive an error among the Roman husbandmen, which is exerting a very detrimental influence upon our agriculture at the present day. Many of his countrymen possessed fields of so great extent, that they were unable to bestow upon them a thorough culture, and accordingly, like much of our land, they were but partially cultivated, the thistle and the sterile weed growing quite as luxuriantly as the crops of the farmer, with which they were mingled. The writer, perceiving this, cautioned his countrymen in the following comprehensive and laconic language—*Laudato ingentia rura, exiguum colito.* The import of the expression is, that it is better to expend a thorough culture upon a small field than a superficial culture upon a large one. Many of our farmers boast more of *much* land, than of *good* land. They seem to think more of reaping a large field for a small harvest, than of reaping a small field for a large harvest. Sometimes we hear one say, "I've got a good farm ; why, there's over one hundred acres of tillage land." And then we hear another say, "I've got a good farm ; to be sure I've only twenty-five acres of land under cultivation, but it is *well* cultivated ; I spare no pains in supplying it yearly with an abundant coat of fertilizing substances, and it *pays* me for it."

The one-hundred-acre farmer goes out in the spring, and scatters a few tons of manure over his extensive tillage land, so thinly, that those of the poor plants from which he expects a crop, will be quite fortunate who do not have to extend their roots an almost incredible distance, in order to obtain the designed aliment, and then having reached a small clod of the fertilizer, are not compelled to share it with several of their neighbors. The foolish husbandman expends a vast amount of time, labor and money in plowing and planting his unprofitable farm, and is so driven, as to be obliged to hurry in his crops at the very latest moment allowable. Hoeing time (if the crop is corn) comes on apace, and then all is hurry and confusion, early in the morning and late at night. He gets the first hoeing about three-fourths done, and it is time to hoe again, so that one-fourth is left to the domination of the weeds. He hires more men and commences the second hoeing. He hurries his laborers, until they but half do their work, and gets through his field a few days after the proper time. The portion which remained after the first hoeing, is gone over hastily, but the weeds have become so numerous and large, that in their eradication, the danger attendant upon disregard of the caution in the old parable,—"Lest ye root up the wheat also," is greatly incurred. Now, look at his field! Behold the dwindling, spindling, dwarfish, slender mockery of vegetation—a regular crop of Tom Thumb corn. Harvest time is at hand. Hurry! hurry! hurry! again ; the poor farmer is a perfect slave. Work! work! work! not so much because there is an immense crop to be garnered, as because he must *go over one hundred acres* ("the good farm,") and he at last gets his grain into shocks, but it is almost a day's travel between them, and a near-sighted person would require a spy-glass to see from one to another. Finally, after protracted and disagreeable labor, the diminutive crop—the result of so much toil and expense, is in the granary—a small one, partly full.

So much for the hundred-acre-farmer. Reverse the picture. The farmer with his twenty-five-acre tillage lot, in the spring, first proceeds to copiously supply his ground with necessary fertilizers. He plows and plants with no distressing "hurries" to distract his mind. He sits pensively reading his paper, or studying his profession, at many a twilight, when his hundred-acre neighbor is hurrying and toiling as if his life were depending upon the exertions of that hour. Hoeing is commenced and ended in its proper time.* And the wise and happy farmer has the pleasure of beholding a luxuriant crop, stretching its rank, brawny leaves to sun and shower. At Autumn, his granaries are full. And, in short, order and neatness make his life, what the farmer's life should ever be—a life of quiet contentment and honest pleasure.

Remember it. It is worth as much now as it was 1900 years ago,—*Laudato ingentia rura ; exiguum colito.*

Duration of Vegetable Life.—Lord Lindsay states, that in the course of his wanderings amid the pyramids of Egypt, he stumbled on a mummy, proved by its hieroglyphics to be at least 2000 years of age. On examining the mummy after it was unwrapped, he found in one of its closed hands a tuberous or bulbous root. He was interested in the question how long vegetable life could last, and he therefore took that tuberous root from the mummy's hand, planted it in a sunny soil, allowed the rains and dews of heaven to descend upon it, and in the course of a few weeks, to his astonishment and joy, the root burst forth and bloomed into a beauteous dahlia.

NEW PUBLICATIONS.

Langstroth on Bees. We recommend to every person who owns bees, or who intends to own them this spring, to read *Langstroth's* book about them. While it abounds with the most valuable facts in nearly every thing concerning them, he has also made it, by his purity of style and elegance of diction, as attractive as many of the best works of the imagination.

Relations of Chemistry to Agriculture. By Justus V. Liebig. Translated by Samuel W. Johnson. Pamphlet, 87 pp. Luther Tucker, Albany. Price 25 cents.

Every Lady her own Flower Gardener. Pamphlet, 119 pp. Price 25 cents. Saxton & Co., New York. A pleasant and valuable book. If it only teaches to rear a single flower, it will well repay the cost. For sale by Redding & Co., Boston.

The American Kitchen Gardener. By the same enterprising Publishers. It will prove a wonderful help to most persons owning a garden. For sale by Redding & Co., Boston. Price only 25 cents.

The Cold Grapery, from direct American Practice: being a concise and detailed treatise on the cultivation of the exotic grape-vine, under glass, without artificial heat. By William Chorlton, Gardener. Saxton & Co., New York. Price 50 cents, neatly bound. This little work tells us how to plant the vine, cultivate, prune, and do all things in relation to it, to secure a crop under glass, but without stoves or fire.

Northern Farmer. Woodstock, Vt. *Brown & Crosby*, Publishers. $1,50 per year in advance. This is a new paper, filled with instructive articles, both original and selected, of a miscellaneous and agricultural character. We hope it will prove eminently useful in the wide field in which it has embarked.

Training a Balky Horse.—The *Michigan Farmer* says, a horse became balky in Detroit a short time since, and neither whipping nor coaxing could make him stir. A rope was then fastened round his neck and he was dragged a short distance by another team, but this did not effect a cure. The rope was then taken from his neck, passed between his legs and fastened firmly to his tail. In this manner he was drawn a short distance, and when the rope was taken off, the hitherto unruly animal was perfectly obedient to the will of his master. We have seen this method tried with similar results.

ASPARAGUS.

A friend tells us that he obtained a plenty of Asparagus in one year, from the setting, by the following modus operandi:

In May, 1853, he bought 100 roots of B. K. Bliss, of Springfield, for one dollar. He dug out a spot in his garden 10 feet by 5, one foot deep, throwing the earth out on the sides. Next he put in 6 or 8 large wheel-barrow loads of well rotted manure, and dug it into the sub-soil nearly another foot in depth. He then filled up the trench a little above the general level of the ground, putting in about equal parts of manure and soil before thrown out. On all he sowed half a bushel of salt; and then set the plants. On the same day of May, 1854, he cut a large quantity of fine asparagus, and continued to do so through that and the following month.

Suggestions.—He did well to purchase the roots of a skilful gardener, instead of taking two or three years to grow them from the seed, and then perhaps failing, for the want of that definite practical knowledge on the subject, which Mr. Bliss has acquired in the prosecution of his business.

He did well to dig and throw out the soil one foot; but would have done better, and in the end would be better paid, if he had gone two feet, and had put the second foot into his barn-yard or pig-pen. This yellow sub-soil—who would think it?—is excellent for composting. Harvey Dodge of Sutton, who last year obtained the premium for the best managed farm, has used nothing but sub-soil for composting these years, and few if any farmers have raised better crops, or sold them at a higher profit on the expenses of cultivation.

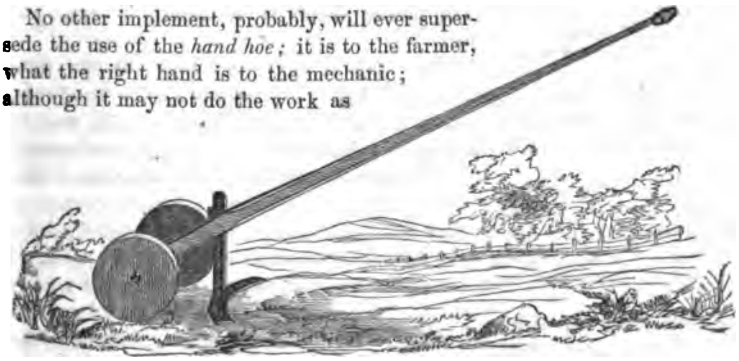
If our friend, instead of putting *well rotted manure* under his bed, had put such as *would be rotting* for the next quarter of a century, he would have done better. Green manure would not have done well. The fermentation would have been too violent for the young plants, and too soon over. Manure is wanted under an asparagus bed that operates twenty-five years. If he had dug two feet or more, and then filled to one foot of the surface with old boots and shoes, the parings off of the shoe-shop, bones, horns, woollen rags, the parings of cloth dressing establishments, tag-locks from the sheep-shearing, &c., &c., all mixed in and laid solid with fermented manure, and then had filled up to four or five inches above the general level with equal parts of top soil and well rotted manure, we think he would have laid the foundation for an asparagus bed, which, by being covered with litter over winter, and dressed each spring with fermented manure and half a bushel of salt, would have yielded more Asparagus than half a dozen families would consume, for at least twenty years. The starting of a good and permanent Asparagus bed, is no cheap affair; but at half the price which the article brings in our markets, it will pay a large per cent. in the outlay. We saw an asparagus bed of 20 acres, near London, which the owner told us, never yields less than £50 to the acre, and often as high as £60.—*The Farmer—by Prof. Nash.*

☞ So far, this Spring, the emigration from New England to the West appears to be greater than was ever before known.

THE WHEEL HOE.

This is an implement of which we can speak from a practical experience, having used it personally for two or three years, with the most satisfactory results. An implement much like this has been in use among the thrifty farmers in Essex county for many years, particularly by the onion raisers there, and by them is called the onion hoe.

The knife in the cut below, varies somewhat from the one given in the September number of the *Farmer*, for 1853; some prefer one form and some the other.



No other implement, probably, will ever supersede the use of the *hand hoe;* it is to the farmer, what the right hand is to the mechanic; although it may not do the work as fast as some other implement, no other can do it better. It suits all places and conditions of soil, and must always remain an indispensable tool on the farm. But the *wheel hoe* is more than "cousin german" to it, as in good hands it will perform five times as much service in a given period, and where every thing is favorable, do it nearly as well as the hand hoe.

It is an implement which, after long and thorough trial, we unhesitatingly recommend to the farmer and gardener, as one which will save a great deal of unpleasant labor in weeding, and enable him to raise *ten* bushels of carrots as easily with it, as he could *five* without it. In order to give the operator perfect control of it, there should be a cross piece on the end of the handle about 18 inches long; this does not seem to be very well represented in the engraving.

They are manufactured and sold by *Nourse & Co.*, 9 and 13 Commercial Street, at $1,25 cents each.

Spring Purchases.—Those persons about purchasing trees, shrubbery, grape or other vines and bushes which grow small fruits, if they study their own interest, will look at our advertising columns. Asa Clement, whose post-office address is Lowell, James Hyde & Son, Newton Centre, Anthony & McAfee, New Bedford, Mrs. S. W. Cole, Chelsea, Ephraim Wood, Salem, W. Hall, Bradford, and others. They are persons to be relied upon.

For the New England Farmer.

MATURING PLANTS.

(REVIEW OF R. M. I.)

Mr. McIntire objects to the idea that plants before coming to maturity feed more from the atmosphere, and that potatoes produced from seed do not come to maturity for some years, &c.

After what I have heretofore said upon the first of the above ideas, it does not appear to me that anything more is required upon that head. As to potatoes producing large tubers at once, from potato-seed, I am not aware of having advanced any such idea. The potato first produces little fibrous roots. It then supplies the tops with certain mineral substances, as has been ascertained by chemical analysis. When the tops have come to a good degree of maturity, then tubers may begin to form. But at this point let the tops be cut down, and the formation of tubers is at once arrested. Many experiments and facts lead me to this conclusion.

The first growth of tops from the potato-seed, is very small. The tubers produced will be correspondingly small. These tubers are planted, and produce larger tops. Then are produced larger tubers. Then again those tubers are planted, and produce still larger tubers. Usually, in three or four years, under proper circumstances, the seedling potato reaches its maturity, when the tubers are as large as they will ever grow, under the same circumstances of culture. Does the young seedling potato produce seed from seed? If that is the ordinary way the potato does business, "we'll give it up."

It is a fact that potatoes will sometimes produce an abundance of seed, and but a very small yield of tubers, where large tubers were planted, and the soil and the culture were indifferent. That the carbon of the old potato went directly into the growth of the seed is very evident, I think.

I have been well assured of the fact that enormous crops of potatoes have been produced from the deep soils composed of old vegetable matter, in the West, where nothing but the mere eyes of potatoes were planted. Experiments have abundantly demonstrated that such things cannot be done upon a soil but scantily supplied with old vegetable matter. This is a fact which is full of instruction. The experiment has been tried, of planting the eyes of potatoes, on land less abundantly supplied with old vegetable matter in a state of decomposition. It has proved an entire failure. Among the farmers of New England it has been found that an excessively rich soil, or one full of carbon with such a degree of moisture as to produce rapid decomposition of vegetable matter, is almost certain to produce disease in potatoes.

It has also been observed that seedling potatoes, generally, for some years after being produced from seed, do not ripen fully. During this period, they are less desirable for cooking. This was the case with the long reds, the blacks and the Danvers reds. As they grow older, they become better for table use, ripen earlier, and as far as I have been able to ascertain, are more liable to rot.

The idea that a plant feeds more from the air before maturity, and more from the soil while producing seed, seems to be disputed. How can we know? Take an English turnip and set it in moist sand, with no carbonaceous food, and it will grow and blossom with nearly as much promise as though set in a good soil. When fully in bloom, an examination will show that the root is but slightly changed in its condition. After the blossoms are closed, the root will change very rapidly, and become used up, before seed is matured. Let the turnip be set in a soil where it can procure a supply of carbonaceous food, and it will mature seed. As the blossoms fall from short-lived plants, a new process in Nature's economy begins.

Every man who knows the chemical composition of a tree, knows that it must take the principal part of its substance from the air. After trees blossom, the fruit makes but little progress in growth until the woody formation for the year is at an end.

If, in the latter part of July or the first of August, the supply from the roots is cut short, either by the work of borers, or by shortening the roots, the supply of mineral elements will be less than the supply of carbon which had been taken in through the leaves. The natural effect will be that the tree will form fruit-buds instead of continuing the growth of wood. This is a well-known fact.

Note explanatory.—The above was mostly written about the first of January last, and it was my intention to add several items to it; but ill health has prevented. I have waited a good while with the hope of being better able to think and write, but I cannot now write much.

A. G. Comings.

Pea Weevils.—Few persons, (says Dr. Harris,) while indulging in early green peas, are aware how many of these insects they swallow. When the pods are examined, small discolored spots may be seen within them, each corresponding with a similar spot on the opposite pea. If this spot on the pea be opened, a minute whitish grub, without feet, will be found therein. It is the weevil in its *larva* form, lives upon the marrow of the pea, and arrives at its full size by the time the pea is dry. This *larva* then bores a round hole, from the hollow in the centre of the pea, quite to the hull, but leaves the germ of the future sprout untouched. This insect is limited to a certain period for depositing its eggs. Late sown peas escape its attacks. Those sown after the 10th of June are generally safe.

When the peas are green, the Baltimore Oriole splits open the green pods, for the sake of the grubs contained in the peas, thereby greatly contributing to prevent the increase of these noxious insects. The instinct that enables this beautiful bird to detect the lurking grub, concealed as it is within the pod and hull of the pea, is worthy of admiration.—*Harris's Insects, &c.*

HOW TO USE FERTILIZERS.

We advise farmers to make all the manure they can, on their farms, by every fair and possible contrivance; and when made it will require as much skill to *expend* it judiciously, as it did to collect it. Save everything—lose nothing. Let every leaf, straw, chip, every sort of droppings from the animals, from the sink-spout, from the clouds, every bone, old boots and shoes, rags, all manner of offal, and every ditch that leads and stream that flows, either across or around the farm, be directed to some appropriate place or reservoir; where it shall be collected and preserved from loss as carefully as though it were gold dust.

When this is done, we advise to one thing more, and that is to purchase all the wood ashes he can find that shall cost him not more than fifteen cents a bushel, and all the charcoal dust he can obtain at a cost of not more than ten cents a bushel. We advise no man to purchase what are called the *specific* manures for the *general purposes of farming*. That they can be used with advantage in many instances, by those who know how, and are willing to take the pains, we have no doubt. But the losses arising from their use last year, in this State, were of no mean magnitude, and we fear they will not be the present year.

The only way in which we can learn the value of fertilizing substances at our command, is by experiment, and not by analysis, and with this idea we shall continue to use guano, bone-dust, poudrette, superphosphate of lime, gypsum, salt, saltpetre, and such other articles called fertilizers as we can readily procure.

There are thousands, however, who have not yet used any of these, who are desirous to do so, and are constantly inquiring how, and in what quantities, they shall be applied. In order to aid such inquiries we have prepared, with a good deal of care, the following remarks upon several of the articles commonly used.

Peruvian Guano.—There are several kinds of guano, and the value of each is fixed by the price asked. 300 pounds is not too much on soils moderately fertile—more on poor lands, and less on those naturally rich and recently well manured.

Application.—Pulverize it finely and spread broadcast upon the surface, if the land has been well plowed; if not well plowed, harrow once before spreading, then cultivate the guano under from *one* to *three* inches, according to the nature of the soil; shallow in wet, and deeper in dry soils.

If Peruvian guano is to be used in the hill, it should receive six to ten times its own bulk of muck or loam, be thoroughly mingled, and when applied to the hill mixed with the soil with the *hoe*, not the *foot*.

Mexican guano and superphosphate of lime may be spread broadcast, or placed in the hill, and the quantity used may be from *two to four hundred pounds per acre*, according to the condition of the land and the objects desired to be gained.

On all crops of the turnip or cabbage kind, the superphosphate is particularly useful.

It is an excellent plan to add a table-spoonful of guano, or super-phosphate, to the hill, for corn, as it gives it a vigorous start, bringing out the broad leaves early to supply food from the atmosphere. At 3 feet 6 inches one way and 3 feet the other, there would be 4148 hills per acre; allowing 4 spoonsful to the gill, *four bushels* would give 4096 spoonsful, which, at 60 pounds to the bushel, would be 240 pounds per acre; and this is good a way of helping out where the manure heap is limited.

Bone dust may be used in the same manner and in about the same quantities.

Perhaps as good a return might be realized from any of these fertilizers by scattering them in very small quantities upon the suaface immediately after hoeing, and covering them carefully, at each hoeing. But the process would be a tedious one.

Lime and ashes should not be mixed with guano. Use them separately.

Guano spread upon grass ground should be applied while rain is falling; for uplands, it would pay well to mix it thoroughly with muck.

A solution of two or three pounds of guano to a barrel of water is an excellent fertilizer for valuable plants, and garden vegetables, applied about sunset, once or twice a week.

Corn Fodder.—A piece of sward land was broken up in the month of June, (10th day) planted with corn, in drills, four feet apart, hoed twice, and the produce cut and tied in bundles on the third day of September. The yield was found, by weighing, to be equal to thirteen thousand, seven hundred and sixty-nine pounds to the acre!

COST OF CROP.

Plowing	$3,75
Harrowing	75
Seed	30
Planting	1,75
Hoeing	4,00
Harvesting	2,00
Total	$12,55

This fodder was fed as dry food to cattle during the winter, and was highly relished. By chaffing, corn fodder produced in this way will, we think, be found very economical, especially in seasons when hay is cut short.

For the New England Farmer.

PROFITS OF FARMING.

Mr. Editor:—While on a visit to a friend, I chanced to come across your valuable agricultural paper. I saw some of your correspondents gave their experience in managing their farms, and, thinking it might be acceptable to some of your readers to know how we of the Empire State get along in farming, I give you a short sketch, as follows.

I purchased a farm of forty acres in the spring of 1852, not forty miles north of Troy, and paid $20 per acre, or $800; $500 was paid down, and the remainder left on mortgage. One-third of the soil is alluvial, one-third gravelly, and the remainder decomposed slate, mixed with reddish loam; thirty acres of improved land, and the remainder timber. The farm had been rented for the past ten years, consequently it was very unpromising. House old, boards loose and swinging in the wind, the windows almost without glass, &c.; the out-houses were miserable, and worse still were the fences; rails were scattered hither and thither, and hedges, stone heaps, and old logs were thrown promiscuously over the premises. Being determined to go ahead in the world, I commenced fencing and repairing, and have, in the course of three years, built a new dwelling house, and repaired the out-buildings and fences. My little place has now the appearance, and is a neat and comfortable farm. Beside paying the mortgage, I am now out of debt, with one span of horses and fixtures, five calves, twenty sheep, four hogs, poultry, &c. I give below the amount of farm produce which I raised the past year, though it was one of drought, and generally short crops in this section of Washington county.

20 tons of hay, worth $10 per ton	$200,00
200 bushels corn, 80 cents per bushel	160,00
300 " potatoes, 50 cents "	150,00
150 " oats, 50 cents "	75,00
20 " wheat, worth $2 "	40,00
100 " apples, 20 cents " (common)	20,00
Seeds, clover and herds grass	10,00
500 lbs. butter, worth 20 cents per lb.	100,00
Corn-stalks, straw, &c	50,00
	$805,00
EXPENSES.	
One hand 5 months, $12 per month	$60,00
5 tons manure and plaster, $8 per ton	40,00
Repairs, &c., for farming tools	10,00
Farming tools purchased	30,00
Groceries, &c., wearing apparel	50,00
Interest, &c., on $800, value of repairs, stock, &c.	150,00
Produce consumed, deducting the growth of stock	100,00
	$440,00
Which leaves a nett profit of	365,00

My own labor has been amply paid by the increased value of the farm. I have been offered $3,000 for the farm and stock. Do our merchants or mechanics often do as well on the same amount of capital employed? J. Hades.

Washington County, N. Y., 1855.

Connecticut State Agricultural Society.—At a late meeting of this Society, at Hartford, that city was was fixed on for holding the next exhibition, and the following officers were elected: *President*—Samuel H. Huntington, of Hartford. *Vice Presidents*—Charles H. Pond, N. B. Smith. *Corresponding Secretary*—Henry A. Dyer, of Brooklyn. *Recording Secretary and Treasurer*—John A. Porter, of New Haven.

POTATOES.

Much has been said and written on raising potatoes; and although I am not much of a farmer, yet I have taken some little pains to inform myself of the best way.

1st. I think the best land for potatoes is on our side hills, which is generally a deep loam and rather moist. The potatoes are not so likely to be injured by frost as in lower land, nor so subject to blast or rust: moreover this is the natural soil for a great crop.

2d. As to manure, forty common loads is none too much for an acre. If I had a thousand acres of land, and but forty loads of manure for my potato ground, I would plant but one acre if the land was not rich.

I am acquainted with two farmers who live near each other. The soil of their farms is very much alike; one uses forty loads, while the other uses eighteen to twenty loads of manure per acre. The first has generally 400 bushels of potatoes to the acre, and the last 200 to 250. This is not all the former gains. His land holds out several years for other crops; while the latter has but a small crop even the second year.

3d. The seed of potatoes ought to be changed every five or six years. Even if the seed is brought but two or three miles, the crop will be much better.

4th. As to planting, I think the rows ought to be about three and three and a half feet apart, and the hills eighteen inches or two feet apart, and the potatoes cut for planting a large one in three pieces, and those smaller in two pieces (no small ones should be planted) and three pieces put in each hill. I have tried whole ones; they do not spread so well, and therefore do not produce so much as cut ones. I planted three years since

2 rows with 4 pieces in a hill,
2 do. 3 do. in a hill,
2. do. 2 do. in a hill,
2 do. 3 eye end pieces in a hill,
2 do. 3 butt end pieces in each hill.

The butt ends weighed one-sixteenth more than the eye ends.

The product was as follows, viz:—The rows with 4 pieces yielded 10 bushels—many small ones.

Rows of 3 pieces, 10 bushels—not many small ones.

Of 2 pieces, 9 bushels there were very few small ones.

The rows of eye ends, 9½ bushels—many small ones.

And the two rows of butt ends, 10½ bushels—and the best in the whole lot.

I have tried it since with the same or nearly the same success.

I should not have believed the butt ends would have produced the best crop if I had not tried it; for some, even many of the pieces did not appear to have any germ; and the reader has the same liberty not to believe it until he tries it.

I saw in your last *Visitor* some experiments of Elias Frost on raising potatoes. He says he planted 5 lbs. 9 oz. of eye ends, and on the same quantity of ground planted 3 lbs. 10 oz. of the butt ends, and had the best crop and largest potatoes from the eye ends. Now he ought to have cut the potatoes so that the butt ends would have been as large, and even larger than the eye ends, as the butt end has fewer germs. If he will try again, and give the butt end a fair chance, he will probably come to a different conclusion.

For the New England Farmer.

PRUNING TREES AND SUN-SCALD.

Mr. Brown:—I am glad to see Mr. Little's remarks on pruning, &c. Now Mr. Little, I think, cannot intend to go into raising apples on a large scale, or if he does, it must be where land is not so valuable as it is in Brookline. Here we are under the necessity of making the most of our land. My neighbor, Farmer Jones, has forty acres of land; most of it is planted with apple, pear, plum and cherry trees, the apple trees from 35 to 40 feet apart; he raises all kinds of green sauce for the market, as well as hay and grain. Mr. Jones cultivates every foot of his land, orchard, and all; he breaks it up every third year, after laying it down, and cultivates at first for potatoes, squashes, melons, corn, and then the next year for peas, beans, or other crops. He generally gets two crops a year; a crop of peas, and then sweet corn, beets or potatoes, and then turnips; sometimes three crops, first spinach, then lettuce, and after that beets. So you see that we are under the necessity of pruning our trees in the old way (but not as broom-sticks, but more like a large umbrella,) and by doing this we cut off the branches when young and trim our trees about six feet high, and then let them branch out, not leaving too many branches; three or four is enough. This enables us to plow, harrow, or do anything else we choose in our orchards, and by plowing every third year and then cultivating two years, our trees are always free of roots on the surface. They get well manured, trimmed of all suckers or superabundance of limbs, and all interfering branches, while they are small, by which means we give them a most beautiful top, and they in return give us a most plentiful crop of large, fair fruit, without any fear of sun-scald. Out of four hundred trees, I do not think a single tree can be found with sun-scald; we wash them every spring with potash, a pound to eight gallons of water, which kills the scales and lice, and then we scrape off the loose bark, taking care not to scrape too deep, so as to expose the inner bark; this will remove all the vermin and insects that have secreted themselves under the bark, or in any crevice in or on the tree. The fall is the best time to trim or prune trees; February and March to wash and scrape them. February and March is the best time to salt plum trees, and cut away any fungus or black warts. If Mr. Little will, when in Boston, get into the Brookline cars, they will bring him to my house in ten minutes, and I shall be happy to show him the broomsticks that he speaks of, and also the manner in which Farmer Jones does things on his farm—also mine on a small scale. S. A. Shurtleff.

Gone to Farming.—We have great hope of the world yet—it grows more and more sensible every day.

> "Hope springs perennial in the human breast,"

certainly it does—and that hope with nearly all men is, that at some time, not far distant, they shall *go to farming*. So our old friend Daniel Needham, Esq., of Groton, has tipt up his ponderous law tomes, gone to Quechee, Vt., and planted himself on a three-hundred-acre-farm on the banks of the "Silver Quechee," where we trust he may vegetate and thrive exceedingly.

A SKETCH OF FARM LIFE.

"There is poetry in farming." True,
But I have read and so have you,
That "*distance* lends unto the view
Enchantment fair."
For instance: digging gold will *do*
Till one gets there.

In summer planting, weeding, hoeing,
And practising "*Knick-knack's*" at mowing,
(That science which you boast of knowing
So very well,)
The scorching sun no mean type showing
Of what's called h—l.

In winter tugging with the flail,
Or sledding in the cutting gale,
Such as would send a gallant sail
In bare poles seaward,
And blows your fore-nag's lusty tail
Straight out to leeward.

In place of literary talk
With compeers in your daily walk,
It's "Shall you top, or cut the stalk
Of that ere crop!"
Or, "Sold yer cattle?—how'll ye chalk
To swell or swop?"

Not half the *prose* may well be told
Which farmers every day behold
In summer hot and winter cold,
Dull as 'tis real;
Yet we've incentives manyfold
To the ideal.

The pictures in the book of June;
The glorious dawn, the balmy noon;
The dewy eve, the rising moon;
All these are ours,
And all the recompensing boon
Of birds and flowers.

When Winter hurls his storms apace,
Oft piteous is the farmer's case:
Night comes—the blazing chimney-place
Stills all complaints;
Thaws out his features, till his face
Shines like a saint's.

There while the cheer reeks to the ceiling,
He gets most comfortably feeling,
Thinking how barn and battened shielling,
Secure and warm,
His poor dependants safe are shielding
From the storm.

There he may read, muse and ponder
Upon this life, this world of wonder;
There, judge-like, he may set asunder
The truth from error,
And see in men of "blood and thunder"
No cause for terror.

There he may form just estimate
Of those the world calls good and great;
See *fortune*, *circumstance*, and *fate*
Create renown,
And give a knave a chair of state,
An ass a crown.

Knickerbocker.

For the New England Farmer.

MURIATE OF LIME.

Mr. Editor:—Early in June last, I procured a barrel of Mr. James Gould's muriate of lime, who requested me to make trial of it upon my crops. I tried it upon six rows of corn, in the middle of a field, at the first hoeing, putting a small handful to each hill. On one side I had planted six rows of corn, manured in the hill with compost; on the other side an equal number of rows, manured in the hill with guano. No manure had been used in the hill, in the six rows to which I applied the muriate of lime; but the whole field, previous to planting, had been dressed with a thin coat of compost. As the field was surrounded by two or three rows of potatoes, of course there were two or three hills of potatoes at each end of the rows of corn. These were treated with the same kind of manure as the corn in the rows, of which they were a continuation.

On harvesting the crop, I found that the corn to which the muriate of lime had been applied, was stout and the crop good, considering the season; in short, about one-third heavier than that on which the compost or guano was used. The potatoes which had been treated with muriate of lime, were nearly twice as large as those which were manured with the compost or the guano, and there was about the same number to the hill. Larkin P. Page.

Bedford, Mass., 1855.

WHAT IS RESPECTABLE SOCIETY?

We heard a man, otherwise intelligent enough, lately sneer at another, "because," said he, "one never meets him in respectable society." The speaker did not mean, however, that the person he affected to look down upon was immoral, but merely that his circle of intimates was not composed of the fashionable or the rich.

This notion of what constitutes respectable society, is quite a favorite one with that class of individuals, whom Thackeray has so significantly called "snobs." Empty pretence is always making its own characteristics a standard, by which it strives to measure the respectability of persons at large. In a community of mere money-getters, wealth is the test of respectability. Among the proud, narrow-minded, effete nobility of the Faubourg St. Germain, respectability depends on being descended from ancestors, who have married their cousins for so many centuries, that neither muscle nor brains are left any longer to the degenerate descendants. With the dandy officers, who constitute a considerable portion of the American Navy, respectability consists in having sponged on "Uncle Sam," in wearing gilt buttons, and in bilking tailors. Every conceited fool thinks himself, in like way, the only man really weighty, the only person who is respectable.

But true respectability depends on no such adventitous circumstances. To be respectable is to be worthy of respect; and he most deserves respect who has most virtue. The humblest man, who bravely does his duty, is more worthy of respect, is more truly respectable, than the covetous millionaire among his money-bags, or the arrogant monarch on his throne. The fine lady, who back-bites her neighbor, is less worthy of respect than an honest washerwoman. The profligate noble, though he may wear a dozen orders in his buttonhole, is often not really as respectable as the shoeblack that cleans his boots. That which is called "the world" exalts the one and despises the other, but it does not make them respectable, according to the real meaning of the word. Their respectability is all a hollow sham, as they themselves frequently feel: and those who worship them bow down to a Fetish, a thing of feathers and tinsel. The selfish, idle drone, who wastes life in his own gratification, and dissipates the fortune of his progeny, is not, and cannot be, respectable; but the hard-working, self-denying father, who wears out his life to bring up his children, is, even though he be but a day-laorer. Nothing can make Dives fit to lie on Abraham's bosom, while Lazarus is welcomed there, even with the sores the dogs have licked.

This false view of life, which would measure respectability by a conventional standard, is totally at variance with our republican institutions. It creates an "*imperium in imperio;*" for while the law declares all citizens equal, it erects a social standard which endeavors to ignore that great truth. The coarse, brutal, knavish, profligate, criminal—in short all who fall short of their duty to themselves and their fellow-men—are those who are "not respectable;" and this, whether they are rich or poor. While those who live honestly, and strive to do what good they can, constitute what is really the respectable class, irrespective of the fact whether they eat with silver forks or steel ones.—*Dollar Newspaper.*

For the New England Farmer.

CATERPILLARS.

This pest of the fruit-grower may now be very easily destroyed, by simply picking off the eggs deposited on the tips of the branches last summer by the butterfly. They are wax-like in appearance, and form a small ring around the limb, from one-fourth to nearly an inch in length, and about an eighth of an inch in thickness. It is not one-tenth so much work to remove the eggs as it will be the nests by and by.

Not recollecting to have ever seen any thing of this mode of destroying this pest of the orchard in your valuable paper, I send you the above, which is at your service. Enclosed is a specimen of the eggs attached to the limb. S. TENNEY.

West Poland, Me., March, 1855.

THE WEATHER IN MAINE.—The weather here is very cold for the season. The snow is full three feet deep in the woods, and has not began to go off yet. The sugar maple refuses to yield its annual harvest, but we hope warmer days are coming soon. S. TENNEY.

West Poland, Me., March 26.

CORRESPONDENTS will confer a favor by writing on one side of the paper only. We have many valuable communications on hand which will bear keeping, and shall have proper attention by-and-by. As far as possible, we endeavor to introduce those first which may be acted upon practically at once, at the same time desiring to present a variety of topics.

MUCK AND GUANO.

A QUESTION FOR PROFESSOR NASH.

There are few men in whose sound and practical knowledge of the value and effect of manures we have so much confidence, as in that of Professor NASH, Editor of the *Farmer*, published at Amherst. We desire, therefore, to ask him a single question, with a view to making his reply as public as the interrogatory itself. It is this:—What, in your opinion, would be the effect of three hundred pounds of guano upon an acre of good land for the space of five years? And what the effect of the same money cost, say $9.00, of good meadow muck, spread upon another acre of the same kind of land for the same length of time,—both fields to be planted with precisely the same crops, and cultivated and treated every way alike?

For the New England Farmer.

POTATOES—GRASS SEED.

MR. EDITOR:—Having noticed in the *Farmer* a very interesting article from an old friend, AMASA WALKER, Esq., upon his great success in potato growing, I am induced to state the practice of our Long Island farmers in this branch of farming. In the towns of Flushing, Flatland, Flatbush, &c., raising potatoes is the main business of many farmers. They market early, obtain great prices, deal in *peach basket bushels*, and many of them range from two to seven thousand dollars for this crop alone annually. Their principal variety is Mercer, not unlike your Chenango in appearance. They use horse manure, plow deep, and, as one farmer said to me, he had raised potatoes fifteen consecutive years on the same piece of land.

Their practice is to select the *largest* for seed. They cut off and give to the pigs the "seed end," as it is often called; cut the potatoes lengthwise into quarters, plant two and a half feet apart by three feet, and hill very little. They say by cutting off the small eyes, they get more pounds of potatoes, and avoid small ones; four to five large stocks to the hill is all they want. Judging from the large size they were digging, I put them down as the L. L. D.'s of the profession.

Is this not sound doctrine, and would it not apply to Chenangos, Long Reds, and all those long varieties which show a "seed end?" And does it prove any thing in its application to small potatoes? Small potatoes, planted year after year, prove to my mind the *principle of dwarfing.*

I hope Mr. Walker and others will try the Long Island experiment, and publish the result. I would suggest the following plan: 1. Plant the large quarters in rows separately; 2. Plant the "seed end" separately, then there will be no loss of seed, and the difference will be seen; 3. Plant separately the hen's egg size; 4. Plant separately the next size smaller; 4. Plant separately the size of a robin's egg. Test the whole experiment fairly. No time is lost beyond sorting sizes. Results may come that will gratify the ambition to raise *large potatoes*, which is the only aim of the farmer. "Small potatoes and few in the hill" is his abomination.

Sowing grass seed with the oat and barley crops is dangerous, particularly with oats. The rapidly growing grain suppresses the young grass, and in a dry time it is deeply shaded, overpowered and destroyed. Is this not the experience of many farmers? For these crops, and to lay down to grass, manuring and *deep plowing* is the only safe practice. Now we will suppose the grain to be harvested—the land in good tilth—stubble and weeds have afforded additional manure; turn them in by shallow plowing, taking care not to disturb the manure first plowed in for the grain; sow grass seed, brush in and roll, and before winter you will have a better show of grass, a better catch, and full remuneration for patient waiting and extra plowing. The mowing field is the *watch work* of farming. If worth doing, *see that it is well done.* H. POOR.

Brooklyn, April, 1855.

For the New England Farmer.

SUCKER PLUM TREES.

MR. BROWN:—SIR,—In looking over the weekly issue of the *New England Farmer*, of March 3, I observed the inquiry of "J. F. W." what he must do for his plum tree, which fails to bear fruit, although "blossoming full" every year, with your recommendation as a remedy.

Now, Mr. Editor, for the benefit of "J. F. W." and others, I would say that, from twenty to thirty years' experience in cultivating fruit trees, I find that suckers of the plum, transplanted as standards, almost universally fail to produce fruit; though growing thriftily and blossoming freely, they have invariably failed with me. "J. F. W.'s" tree is probably a sucker. But they may be used with good advantage for stocks for improved varieties. I have grafted hundreds of them with good success; they grow finely and bear profusely. I have trees grafted on suckers, from four to six years from grafting, which bore last season from one to two bushels per tree. After grafting, your recommendations coincide with my experience exactly. C. SMITH.

Shelburne, Franklin Co., Ms., March 26, 1855.

For the New England Farmer.

FERTILIZERS—GARGET.

MR. EDITOR:—Will you give me some information through your excellent paper, in regard to using phosphate of lime or some like fertilizer, on such vegetables as beans, peas, &c.

Also where I can get garget-root for cows, and if there is any other remedy as good. A. J. P

Boston, April 10, 1855.

REMARKS.—Superphosphate of lime, guano, bone-dust and ashes, are excellent for all garden crops when properly used. Apply in small quantities, mix well with the soil, hoe well, and you will rarely fail of a crop.

We can supply you with a little of the "garget-root." Whether it is the best remedy for the disease called garget in cows we do not know.

BLACK KNOTS ON PLUM TREES.—We see a variety of cures recommended in the papers for the Black Knot on the plum tree, but thus far, after having tried each of the remedies recommended at the different dates of their publications, and which includes all that has lately been repeated, we assert, without the fear of contradiction, that the Black Knot cannot be cured after it has fairly made its appearance, by any process yet made public.—*Working Farmer.*

EXTRACTS AND REPLIES.

THE BOYS AND THE HENS.

MR. BROWN:—Father has permitted us to obtain half a dozen hens, and we want to know how to manage and feed them in the best way. We find a good many things in the vols. of the *N. E. Farmer* about them, but they don't exactly suit our case. What sort of a coop shall we make? what shall we feed them on? Shall they be constantly confined? We like the instructions we find in your paper, better than those we find in books, because they seem so *natural;* we think the writers have seen what they tell—it is like talking with one who knows. We were so well pleased with the letter you wrote us last fall about the horse-chestnut seeds we gathered for you, that we feel encouraged to write you now.

April 19. HENRY AND EDDY.

REMARKS.—One of the most encouraging facts in the progress of this paper, is, that women and young persons frequently write us and either ask or impart information on the important topics of the farm. It is a great point gained. Our young friends will find no difficulty in obtaining an abundance of eggs and chickens, if they furnish their hens with a dry, warm and convenient roosting place, and plenty of wholesome food. An attic room in an outbuilding, where the sun comes, is a favorable position. They must be warmly sheltered in cold weather or they will not lay. They should have food regularly, and in variety; corn, occasionally boiled potatoes and meal mixed with scraps, the crumbs and bits of meat from the table, oats, barley or wheat, together with gravel and pounded oyster or clam shells. They love to run at large and eat the tender grass, insects, young cabbage plants, and other good things which they find in the garden. But they do well confined a part of the time, being allowed to range for an hour or two before going to roost.

QUANTITY OF SEED.

MR. MECHI, the distinguished English agriculturist at Tiptree Hall, says—"Our farmers have, many of them, yet to learn the advantages of a moderate quantity of seed." The true rule we believe to be to make the land rich and use the less seed; then you get a vigorous growth and fully matured seed.

MR. L. P. PAGE, of Bedford, states that corn planted with muriate of lime, last season, produced one-third more crop than that manured with compost or guano. His communication will be given next week.

—

Why does Vermont wheat make bread that is moist, while that made from Western wheat is dry? Is it owing to the presence of gluten?

— J. E. K.

"Newport, N. H., April 11, 1855. The stage from this place still goes upon runners. Snow in abundance."

BOYS' DEPARTMENT.

PROFANITY.

This is one of the marked vices of the boys of the present day. What multitudes of them are addicted to it. Are parents fully aware of this? Do you know that your sons, when away from home by day as well as by night, are mingling with profane associates? Or rather, do you know that they have not such companions? Are there not parents in nearly every town in our favored Commonwealth, who are famous at home, and it may be abroad, as moral reformers, whose sons are suffered to grow up at home habituated to the use of profane language and all its kindred vices whose number is legion? Said a boy not long since in our hearing, "The boy or the man that will swear will drink and smoke and be guilty of other kindred vices." Said another in reply, "Now we do not think so much of persons who indulges in profane language as of those who do not," a remark fully concurred in by all who were engaged in the conversation.

Boys—our advice to you all is to avoid the wicked practice of using profane language—and all idle words approaching it. There are persons who would not swear, but continually interlard their conversation with such expressions, as, "I vow"—"I swan," and others of similar kind, that will suggest themselves to the reader; also persons that would think it awfully wicked to take the name of God in vain, yet are very familiar with such oaths as, "by Jesus,"—"by hoke" and by every thing else, almost. There are persons, however, who see little difference between "I swan" and "I swear," and, therefore, as a matter of taste, if they use either, choose the latter. Now is it any more wicked to say "I swear," than "I vow," or "I swan?" If so, we confess our inability to discriminate. Let these things be carefully considered in the light of divine truth, and all these idle words will be abandoned.

Let all the boys who read these remarks, who have, already, become addicted to the vice of profanity, resolve to break themselves of it by immediate, total abstinence from every variety of profaneness. Let such also as have not yet become habituated to it, resolve to be free from it—to avoid associating with such as indulge in its use. Swear not at all, for it is not noble, nor brave, nor wise, nor the sign of good culture, nor anything else that is pure, lovely and of good report. Would every girl and woman frown upon this vice and those allied to it, all but the abandoned and hopeless would soon forsake it. Will parents and teachers strive to check the growth of this vice? Will those philanthropists whose benevolent aspirations encircle the globe, see to it, that their sons do not continually annoy their neighbors by profanity?

The Revised Statutes of Massachusetts contain the following declarations concerning profanity:

"If any person, who has arrived at the age of discretion, shall profanely curse or swear, he shall on conviction thereof, before any justice of the peace, be punished by fine, not exceeding five dollars, nor less than one dollar."

We read of one of olden times that neither feared God nor regarded man. If there be any such "as have arrived at the age of discretion," and are habitually indulging in profanity, they should not be unmindful that they are liable to fine and cost, for every violation of the aforesaid statute. When every other means fail, the law should have its course.—*Amherst Express.*

LADIES' DEPARTMENT.

DOMESTIC RECIPES.

Eggs and Sausages.—Boil four sausages for five minutes, when half cold cut them in half lengthways, put a little butter or fat in frying-pan and put the sausages in and fry gently, break four eggs into the pan, cook gently, and serve. Raw sausages will do as well, only keep them whole, and cook slowly.

A Very Nice Rice Pudding.—Take half a teacupful of the best rice, put it in a small pie-dish with three tablespoonfuls of moist sugar. Fill up the dish with milk and water in equal proportions, and bake very slowly. It is eaten cold.

Omelettes.—Break four eggs into a basin, add half a teaspoonful of salt and a quarter ditto of pepper, beat them up well with a fork, put into the frying-pan one ounce and a half of butter, lard, or oil, which put on the fire until hot; then pour in the eggs, which keep on mixing quick with a spoon until all is delicately set; then let them slip to the edge of the pan, laying hold by the handle, and raising it slantways, which will give an elongated form to the omelette; turn in the edges, let it set a moment and turn it over on to a dish, and serve.

It ought to be a nice yellow color, done to a nicety, and as light and delicate as possible. It may be served in many ways, but the following is most common: two tablespoonsfuls of milk, and an ounce of the crumb of bread cut in thin slices may be added.

To Make Fine Pan-cakes, Fried without Butter or Lard.—Take a pint of cream and six new-laid eggs; beat them well together; put in a quarter of a pound of sugar and one nutmeg or a little beaten mace—which you please, and so much as will thicken—almost as much as ordinary pan-cake flour batter; your pan must be heated reasonably hot, and wiped with a clean cloth; this done, spread your batter thin over it, and fry.

To Clean Window Glass.—Take finely pulverised indigo, dip it into a linen rag moistened with vinegar, wine, or water, and apply it briskly to the glass. Wipe off and polish with a dry cloth. This method of cleansing window glass imparts a brilliant polish, and is far more expeditiously accomplished than cleaning with soap-suds or whiting.

We select the following from a large number of similar notices with which we have been favored from time to time by our cotemporaries :

We improve this opportunity to call the attention of our agricultural friends to the New England Farmer, published in Boston, as one of the most valuable publications of the kind in the United States. There are few farmers so well informed that they might not derive advantages from its perusal, a hundred fold beyond its cost. It is published monthly, each number containing 48 large octavo pages, at only $1.00 a year.—[Hampshire Gazette, Mass.

New England Farmer.—The August number, as usual, is filled with matter of great importance to the farmer. There are no better works reach the home of the agriculturist than this. Its articles are timely, able, and instructive—and its illustrations are fine.—[Telegraph, Penn.

New England Farmer.—The New England Farmer is a first rate monthly, devoted to agriculture, horticulture, and their kindred arts and sciences, which we unhesitatingly recommend to our farmers and reading community. Each number contains about forty pages, and the last two we have read with pleasure, finding them filled with practical, valuable and instructive articles. Several who have examined the numbers we have received were much pleased with them.—[Monmouth Inquirer, N. J.

New England Farmer.—This is one of the best agricultural papers the farmer can find. It is well adapted to the wants of the farmers in New England, and should have an extensive circulation among them.—[Greenfield Republican, Mass.

☞ We omitted last week to credit the article headed "Farm Work for September," as we should have done, to the best Agricultural paper in New England, the N. E. Farmer. It was so good we supposed all would know where it came from.—[Amherst Cabinet, N. H.

The **New England Farmer**, a monthly devoted exclusively to Agriculture and kindred subjects, making a fine volume of 576 pages a year. The Farmer is edited by Simon Brown, assisted by Frederick Holbrook and Henry F. French, published by Joel Nourse, Quincy Hall, Boston, at $1.00 a year in advance. The Farmer continues to maintain its high and well-earned reputation.—[Ohio Farmer.

New England Farmer.—We advise our agricultural friends who are in want of a work devoted exclusively to their interests, without being mixed up with the notions of old fogies on politics, to subscribe for the New England Farmer, which is published in a pamphlet form, monthly, at $1.00 per annum. Joel Nourse, publisher, Quincy Hall, Boston.—[Plymouth Rock, Mass.

☞ The excellent article on our last page for "Farmers' Work in March," is from the New England Farmer, one of the most valuable and sterling papers to be found in this country, always filled with valuable information, and a paper from which we can always clip much interesting matter.—[Woburn Journal, Mass.

New England Farmer.—The April number of this useful agricultural work has been received, and merits the praises that have been so universally bestowed upon it. It is, in fact, the cheapest agricultural work in the Union. It is published monthly at Boston on the first of each month, in book form—devoted, *exclusively*, to agriculture, horticulture, and their kindred arts and sciences. Each number contains 48 pages, making at the end of the year, a neat volume of 576 octavo pages. Terms $1 per annum in advance. All orders and letters should be addressed to Joel Nourse, Quincy Hall, South Market Street, Boston, Mass. —[Norristown Register, Penn.

☞ The New England Farmer, for March, has come to hand in good season. and this number fully sustains the excellence of those preceding it. It presents a valuable index for the farmer's use, besides a great variety of valuable miscellaneous reading, which cannot fail to interest those pursuing other vocations than the tilling of the soil.—[Statesman, Vt.

☞ The New England Farmer, from the columns of which our readers have seen many good articles in the Mail, is one of the best agricultural papers, for the common farmer, that comes to our table. It has recently been much improved, and in addition to the weekly is now issued monthly, at $1 a year. Mr. Simon Brown, the editor, successor to the late Mr. Cole, seems to have caught the full idea of the actual wants of the farmer.—[Eastern Mail, Maine.

☞ In the paper of this week will be found a finely written article upon "The Farm in November," which is the leading article of the November number of the New England Farmer, which has just come to hand.

Those of our farmers who do not subscribe for this work, we recommend to do so. It is among the best monthly publication going.—[Suffolk Gazette, N. Y.

New England Farmer.—This is another good agricultural paper, and we take pleasure in recommending it to the public, It is devoted to agriculture, horticulture, and their kindred arts and sciences, embellished with numerous engravings. The matter is mostly original, and from the best agricultural writers of the day.—[Expositor, Mich.

New England Farmer—This excellent agricultural periodical, under the editorial charge of Simon Brown, Esq., assisted by Frederick Holbrook and Henry F. French, is a work which recommends itself to the attention of every farmer. This monthly cannot fail of a good support under its present management, and we hope it will meet with the success it so much deserves.—[Dover Gazette, N. H.

New England Farmer.—This valuable weekly paper, chiefly devoted, as its name indicates, to practical farming intelligence, has no superior in the excellence of its agricultural essays, and in the general tone of its news and miscellaneous departments. The two selections on our outside of last week, under the caption of "Farm Work for May," and the "Garden," should have been credited to the New England Farmer, and are fair samples of the ability and good taste exhibited in the management of the paper. It is edited by Simon Brown, Esq., formerly of Newport, in this State. Many of its best correspondents are also from New Hampshire.—[Manchester (N. H.) Democrat.

New England Farmer.—We are happy to renew our salutations of cordial brotherhood with this excellent agricultural and miscellaneous newspaper, with its first issue for the new year. And there is no paper out of the State that furnishes more reliable and valuable information, and we are always happy to see it on the farmer's table with our own sheet. The New England Farmer is edited by Simon Brown, Esq., with Hon Frederick Holbrook and Henry F. French, Esq., as associates (a strong team,) and is published by Joel Nourse, Boston, at $2.00 per annum.—[Granite Farmer, N. H.

☞ We exchange with a goodly number of Agricultural papers, most of them of established merit and usefulness; but among them all we peruse the columns of none with more interest and comfort than those of the New England Farmer. There is a good deal of old-fashioned home fire-side feeling infused into its language, which reminds us of the capacious hearth and glowing winter fires of long ago, while in the elements of progression and practical usefulness it ranks among the first journals in the land.—[Carlisle (Pa) Herald.

New England Farmer.—An Independent Journal, devoted to Agriculture and General Intelligence. Terms $2 per annum in advance—Joel Nourse proprietor, Boston, Mass.

This is the best paper for a farmer we have on our exchange list, and most cordially do we recommend it. To the intelligent, enterprising young man, just beginning the world, this paper may be the means of saving fifty dollars a year, independent of the pleasure derived from reading it. To such we say, don't fail to send your two dollars for the New England Farmer. —[Ellsworth (Me.) Herald.

☞ Every farmer in Vermont, besides patronizing the papers of his own State and vicinity, should take the New England Farmer. We have known it from its "youth up," and know it to be a first-rate paper; always filled with choice and important matter for the man who would cultivate his farm and his mind at one and the same time, and do it in the best manner. We shall treat our readers to many articles from its columns.—[Vermont Watchman and Journal.

New England Farmer.—We consider this broad and beautiful sheet among the best. if not the very best family journal in the United States. The bold and manly tone evinced by its conductors upon all questions of State and National polity, renders its opinions worth adopting, whilst as a newspaper, its columns afford as abundant a supply as is needed by any family. In the immediate vicinity of its publication, its markets and local news must be particularly valuable, but the world-wide importance of its agricultural statistics is what will specially recommend it to our readers. The price is only $2 per annum, which, for a paper of its size, style of print, and manner of getting up, is exceedingly low.—[Louisville (Ky.) New Era.

☞ The New England Farmer, we would remind our readers, is an excellent agricultural paper, and now is just about the time to make the editor a "New Year's Gift," of renewed subscriptions and some new subscribers.—[Greenfield (Mass.) Republic.

☞ We know of no better agricultural paper in the Union, than the New England Farmer, published at Boston. It should be in the hands of every farmer who would know *how* to farm. —[Banner of the Union, Phila.

New England Farmer.—We call attention to the advertisement of the New England Farmer. This is probably the best weekly agricultural paper in New England. Its editor, Simon Brown, Esq., is a practical farmer, and its other writers are men who write from practical knowledge of the great branch of industry to which the paper is mainly devoted. Those of our people who wish for an agricultural paper published out of the State, will not find a better one.—[Concord (N. H.) Patriot.

New England Farmer.—This is one of the best agricultural journals in this country, and should be in the hands of every person engaged or interested in any one of the various branches of agriculture.—[Exeter (N. H.) News-Letter.

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THE

NEW ENGLAND FARMER:

A MONTHLY

AGRICULTURAL JOURNAL.

FOR THE FARM AND GARDEN.

SIMON BROWN, EDITOR.

FREDERIC HOLBROOK, OF VERMONT, HENRY F. FRENCH, OF NEW HAMPSHIRE,

ASSOCIATE EDITORS.

Without encouragement of AGRICULTURE, and thereby increasing the number of its people,
any country, however blessed by nature, must continue poor.—SWIFT.

Vol. VII. JUNE, 1855. No. 6.

BOSTON:
JOEL NOURSE, PUBLISHER,
QUINCY HALL.

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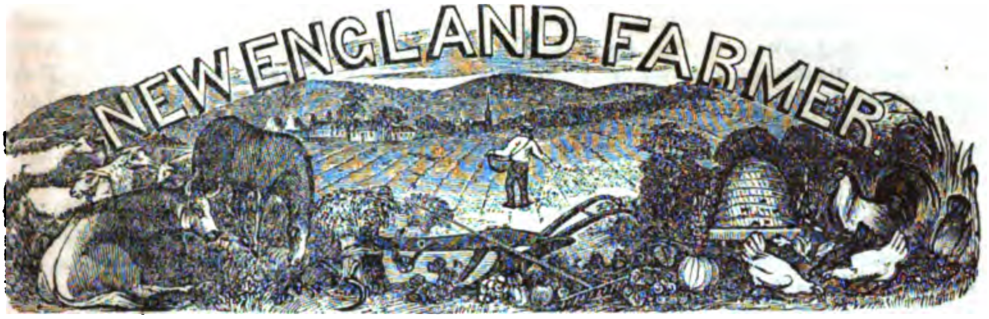
Postage.—The Postage on the Monthly Farmer to Subscribers, is now twelve cents a year, to be paid quarterly or yearly, in advance, at the office where it is received.



DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

VOL. VII. BOSTON, JUNE, 1855. NO. 6.

JOEL NOURSE, PROPRIETOR,
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CALENDAR FOR JUNE.

"These gardens, vales, and plains, and hills,
Which beauty gilds and music fills,
Were once but deserts. Culture's hand
Has scattered verdure o'er the land,
And smiles and fragrance rule serene,
Where barren wild usurped the scene."

JUNE, the first of the Summer months, presents, in this climate, most of the beautiful foliage, and many of the attractive flowers of the year. How every space seems filled up! How blooming and brilliant all vegetable life appears! What a polish, elegance and grace, in the grass and flowers of the field, in the young corn plants, the grain, and the light green of the new oak leaves, or the glossy ones of the stately walnut. Everywhere about our feet flocks of wild-flowers

"Do paint the meadow with delight."

Now we get the grand *jubilate* of the birds—they are all here in their new dresses, and ask no fee to attend their grand choruses. The happiness is a mutual one, for it is as much pleasure for them to sing as for us to hear; so we will plant them trees, invite them by kindness and the erection of suitable habitations for such as enjoy a close proximity to our dwellings, and share liberally with them the fruits of our care; and they shall pay us in their own way, by their songs and the destruction of some of the insects that annoy us.

It must be a busy month. Crops neglected in June can make but a poor return at harvest time; a little neglect now causes not only a lighter crop, but the partial loss of the preparation of the soil and the application of valuable fertilizers—so it is a double loss.

The *head* must now help the hands, and decide where the forces shall move first, and how each particular work shall be done, so that there shall be no losses by delay, or misapplication of labor by doing the work twice over.

Now the thoughtful and *observing* farmer will put to the test some of the theories which occupied his winter evenings' attention, and enable himself either to confirm their truthfulness or expose them as fallacies. He will watch the effect of deep plowing, of fine pulverization, of high manuring, of frequent stirrings of the soil, and the effect of drainage upon plants.

The most important farm work of the month of June, is that of cultivating the crops which have been put in, so that they shall attain the greatest possible vigor and perfection.

HOEING, then, is the key to these results; stop the hoe and you stop the profits. Nature, kind as she is, will no more carry on the plant to perfection, after you have started it, without your care and attention, than she will drive the printing-press, or the factory wheel, after they have been constructed by the mechanic. If there were no weeds, and the earth alone were to sustain the plants, the hoe might rust in idleness; but so long as weeds will invade, and the leaves of plants spread themselves to the sun and air for a considerable portion of their food, the hoe and the cultivator cannot be dispensed with.

A close, compact soil, will neither imbibe the generous dews, nor admit the air and warmth below. It must be light, porous, and its surface frequently changed; then it becomes active, absorbing the dews and catching the fertilizing streams which are ever flowing over it from above. Hoe, then, constantly and thoroughly, if you will reap the full benefits of your earlier labors.

We cannot stop now to explain the principles which make it necessary, but they are principles indispensable to successful culture.

The Garden.—Few persons who have not been in the habit of cultivating and gathering the products of the garden, are aware how much may be obtained from one well-managed towards supplying the table, and furnishing a large amount of seasonable, nutritious and wholesome food for the family. The vegetables and fruits which may be obtained are numerous, and when the management of the garden is reduced to a system, so that a spot is designated for each particular plant, it will be found easy to get it into order in the spring. Constant attention will be necessary to see that the cultivated plants occupy the whole space, and are not left to struggle with weeds and other plants not desired. A few general maxims may be observed with profit.

"Grow nothing carelessly; whatever is worth growing at all, is worth growing well.

Plants when exposed to the action of light, transmit moisture copiously through their leaves; transplanted seedlings, therefore, and cuttings, should be shaded from the sun until their roots are strong enough to supply moisture as rapidly as it is thrown off.

Leaves absorb and give out moisture, and inhale and exhale air; they are, consequently, the most important organs of a plant, and if they are destroyed or injured, the whole plant suffers.

Light is necessary to flowers, that they may acquire their proper hues; therefore, when kept in rooms, their places should be as near to the window as possible."

Lettuce and radishes may be sown each week in the month, which will yield a constant supply for many weeks. Cabbages may be transplanted towards the close of the month for autumn and winter use. Celery plants may be set in the trench, but if the sun is hot, should be protected by boards or something else, until they have fairly taken root. Watering with water which has stood in the sun through the day will forward them considerably.

Buckwheat.—Prepare lands for buckwheat. This plant will yield a tolerable crop on some of our lighter, gravelly soils, and now that flour is $12 to $13 a barrel, with a prospect that it may continue at a high price, it will be well to improve every opportunity for a good supply of this favorite grain.

Sheep and Shearing.—There has never been a greater demand for fine wool or fine mutton, than at this time; both are bringing prices highly favorable to the producer, and they become, therefore, articles of interest to those favorably situated for their production. After shearing, sheep should be carefully sheltered from storms, and receive a little corn, beans, or extra feed of some kind, if the weather is damp and cold. They should also have access to salt, and be looked after to see that they are not molested by dogs, and are not rambling beyond their own boundary.

Cherries—Plums.—If you have choice stone-fruits, and especially on young trees, thin off something off the superabundance, and the remainder will more than repay the trouble in the size and quality which it will attain.

Pruning.—From the 20th of June to the 10th of July pruning may be done if the time can be spared.

Initial Letter.—The young folks may look at our illuminated letter; it may suggest to them some long-neglected brook, pleasantly meandering through a retired meadow, where the speckled trout watch for prey from under an ancient root, and from whence,—if they are skilled in the piscatory art,—they may draw a most delicious fry for breakfast! If they love "virtue and angling," they can undoubtedly spare an afternoon for this pleasant and rational recreation.

WASHING WINDOWS.

A correspondent of the *American Agriculturist* gives the following improved mode of washing windows, which, although not altogether new to us, may be valuable to many of our readers:

I have a great aversion to scouring knives, and never touch brick-dust if I can help it; but if their brightness depends on me, I prefer to rub them three times a day rather than once, for it is less labor, and they last longer.

The nicest article for washing windows is deer-skin, as no particles come off to adhere to the glass and make it look as if washed with feathers. There is no need of any thing larger than a hand-basin for washing windows. The great splashing some people make in the exercise of their art is entirely useless, and is, moreover, deleterious. When the water is permitted to run down in great quantities over the glass, it dissolves the putty and soon loosens the panes from their setting, and also stains the glass. Two pieces of wash-leather and a bowl of suds are all that are necessary. Wipe the glass first with the wet cloth or leather, and after it has become dry, with the clean cloth, and it will look clear, and far more so than if rinsed in a dozen pails of water.

NEW POSTAGE LAW.

Letters sent to the post office and not paid, will be sent to the dead letter office at Washington, and not to the persons to whom they are directed.

☞ All persons writing us on business purely their own, must enclose a stamp for the reply.

Corn.—Soak your seed-corn in saltpetre. It destroys the worm, is not relished by crows or by squirrels, and yields more abundantly.

For the New England Farmer.

NATIVE AND IMPROVED CATTLE.

FRIEND BROWN:—At the time of first writing, through the *Farmer*, to "Essex," about breeds of cattle, I intended to examine the books of our County Agricultural Society, for the yield of the various premium cows, and to institute a comparison of yield in reference to breeds. But I can make no comparison which would be satisfactory to any one, on account of the great difference in manner and amount of feed. Failing in their attempt, I laid down my pen. But the *peculiar* reply of my friend "Essex" to my former communication, led to another search of our records, the result of which I will give you.

"Essex" says that if I had charged him with partiality instead of prejudice, he would have "owned up;" for "I must confess," he says, "*other things being equal*," I do like "our own better than foreign breeds." My friend wont take it amiss, I know, when I tell him that my inclination to laugh, at this point, was irresistible. Ha! ha! "*Other things being equal!*" Why, that is just the point in dispute!—"*Other things being equal.*" Why should either of us care about the mere accident of birth-place, "*other things being equal?*"—that is, all cows costing an *equal* sum, giving an *equal* amount of milk, from which, with an *equal* amount of labor, an *equal* amount of butter or cheese, of *equal* quality, could be manufactured—the cows keeping in *equal* order, upon an *equal* amount and quality of food. Well, for the life of me, I can't see why, "*other things being equal*," there can be room for a *great difference*.

"Essex" accuses me of being "sensitive" to the use of the term "*native*," when applied to animals, and indirectly charges me with an attempt to "mystify the matter," under "an affectation of learning not to be commended." I have no desire to mystify the matter in any degree; and, after the perusal of this article by "Essex," I will leave to his cooler judgment to determine whether "secresy and double-shuffle" "mystery," and "an affectation of learning" is justly chargeable to me when asking the meaning of the term "native," as applied to our stock, nine-tenths of which, he says, are *native*, and "*nothing different from natives.*"

In 1819, the Worcester Agricultural Society held their first cattle show, at which was exhibited the imported Teeswater bull "Denton." If nine-tenths of the stock on the best farms of the best county of the Commonwealth could show *his* blood now, I would undertake to decide beforehand where the State Society's premiums would go next year. "Admiral," another imported bull, graced our shows in 1825, 26, 27 and 28. In 1836, a full blood Ayrshire bull was sent into the county by the Massachusetts Society. In 1842 another animal, of the same blood, was presented to the society by Hon. John P. Cushing. And in 1848, the renewed munificence of the State Society put us in possession of two bulls, one an Ayrshire, the other a North Devon. In addition to these animals, there have been many others from the herds of different individuals in this State, Connecticut and New York.

Up to the year 1828, the breed of the animal was not *generally entered on record.* Still, to that year inclusive, of bulls and bull calves entered for premiums at the different shows, the blood of which was given by competitors, there were 126 of *improved* to 24 of *native* breed. I do not find the records from 1839 to 1842. From 1842 to 1854, both inclusive, (and in this time a statement of breed was required,) there were 308 entries of bulls and bull calves, 272 of which were certified to be, in whole or in part, of foreign blood, *improved*—36 only being entered as native. From 1842 to 1847, both inclusive, there were exhibited 37 native cows, against 34 of mixed or *improved* breeds; while from 1848 to 1854, there were 108 of improved breeds against 39 called natives.

In the class of heifers and heifer calves, in the first period, there were 89 natives against 153 of improved breed. In the last, there were 130 natives against 317 improved. Now, from 1843 to 1854, both inclusive, there were in the classes of bulls and bull calves, cows, heifers and heifer calves, 1115 entries, 784 of which were classed as *improved*. In 1854, out of 33 bulls and bull calves, there were but 2 entered as natives; out of 39 cows, 2 only were entered as natives; and I will give "Essex" one of these two if he does not pronounce her a grade Durham, and high grade at that. I entered her *as* I bought her, and, out of 51 heifers and heifer calves, only 7 were claimed by their owners as natives.

If it is fair to presume that these exhibitions offer a fair pro rata exhibit of our stock, then Essex must admit that *in the best county of the State* nine-tenths of the stock are *not* natives?

If we assume that the best stock of the county is exhibited at these Shows, then *in the judgment of the community* the best of that exhibited has been and is now in whole or in part of foreign blood, and so, *properly*, called "*improved.*"

Because from 1843 to 1853, both inclusive, the disposition of premiums has been as follows:

	Bulls and Bull Calves.		*Cows.*		*Heifers and Heifer Calves.*	
	Impr'd.	Native.	Impr'd.	Native.	Impr'd.	Native.
Up to 1843	44	8	24	19	80	50
1843	5	2	1	3	5	6
1853	7	1	3	0	12	0
1854	8	1	all		13	1

From 1842 to 1847, both inclusive, there were entered of

Cows.		*Heifers and Calves.*		*Bulls and Calves.*	
Native.	Impr'd.	Native.	Impr'd.	Native.	Impr'd.
37	34	89	153	29	104

while from 1848 to 1854, both inclusive, there were entered of

Cows.		*Heifers and Calves.*		*Bulls and Calves.*	
Native.	Impr'd.	Native.	Impr'd.	Native.	Impr'd.
76	142	219	470	7	164

or 457 native of all classes, against 1067 of improved breed.

One thing no Worcester county farmer will deny, that, beginning with Denton in 1819, our stock, whether for the dairy, the shambles or the yoke, has been very much *improved*. This improvement must have been caused either by greater care of the stock, as originally among us, or from the intermixture of foreign blood.

If from greater care of our original stock, why as an almost universal thing, are our premiums bestowed upon animals the farthest removed from it?

If, in a county favored with the presence of many of the best animals of foreign blood brought into the State from 1819 to the present day, Essex can properly say there exists a *native breed*, by which *I* mean one indigenous to the county, I do not understand the force of language. I *now* stop to inquire of my friend Essex *what* constitutes a cow of native breed? at the hazard of being charged with an "*affectation of learning*" in so doing. Yours, W. S. L.

MANURE YOUR FRUIT TREES IN EARLY SPRING.

Almost every mail brings us inquiries relative to the manuring of fruit trees. Fertilizers should be applied to fruit trees in early spring; for the sap first formed is that which contains at least the inorganic pabulum which has been rendered soluble during a long winter, and, therefore, occupies the first quantity of water taken from the soil by the tree in the spring; and if the soil be deficient of the necessary ingredients, they should be added, and our various articles on fruits and fruits trees will give the necessary manure required. The great mass of water passing through trees during the summer, acts but to dilute the portions of soluble materials already resident within the tree. It is true that new portions are being continually taken up from the soil, but certainly in a much more diluted state. Ashes and soluble phosphates are found useful for most kinds of trees, while the disturbance of the soil insures the admission of atmosphere. Manures containing the carbonate of ammonia, such as guano, should not be applied in spring, as they can only safely be used for fruit trees in the fall, thus permitting the soluble and more virulent portions to become divided over a large area before spring growth commences. This is not the case, however, with the improved super-phosphate of lime and some other manures, in which the ammonia exists as sulphate, and not as carbonate of ammonia. Lime may be applied in moderate doses, fairly sub-divided by soil, around apple trees and such others as may need this fertilizer.—*Working Farmer.*

PLANT A GRAPE VINE.

Every person who has the control of a square rod of ground whereon plants may grow, can scarcely do better than to set a grape vine of the Concord, Isabella or Diana varieties. The first cost is trifling, and the after-care of them, more of a pleasure than a task. The grape is not only palatable and nutritious for those who are well, but is exceedingly grateful to the sick, giving tone to the digestive organs, and healthy action to the whole alimentary canal.

Before setting the root, throw out the earth, to the depth of two or three feet and fill up ten inches with coarse manure of any sort, old bones, oyster shells, &c., and then throw in rich loam; into this rake a few quarts of house ashes, then fill up with loam and composted manure, and the soil is ready for the root.

After the plant is set scatter on strawy manure, or leaves, and through the summer occasionally throw upon this the contents of the tubs on washing days. A. J. DOWNING, late editor of the *Horticulturist*, says: "I have seen the Isabella grape produce 3,000 fine clusters of well-ripened fruit in a season, by the liberal use of soap-suds from the weekly wash."

The effect of soap-suds on other plants is sometimes surprising. A cypress vine which had remained stationary for a fortnight, when about two inches high, immediately commenced growing after a good watering with soap-suds, and grew about six inches the first five days.

With a little care this may all be well done by any one who has never attempted it before. Under this treatment in the course of three or four years you will be amply repaid by a most beautiful crop of luscious grapes, and a vine greatly ornamental to the grounds and dwelling.

PRUNING.—The grape vine bleeds readily. Never prune at all, until the vine has grown one or two years, for it needs the aid of the small branches in order to push forward large and vigorous roots. Late in October or in November is a proper time—never when the sap is in motion in the spring. As the fruit grows on new wood every year, in pruning it is necessary to cut back the branches to within two or three eyes of the main stem. The cultivator will find plain directions in *Cole's Fruit Book*, which costs but fifty cents, and it will enable him to see the whole operation illustrated by engravings.

Never pinch off the leaves to aid the ripening of the fruit, as they are placed there for the very purpose you desire to accomplish.

Plant a grape vine, and before long some of you will be thankful to him who gave you the hint.

HOEING IN DRY WEATHER.

Experience has fully established the fact at corn, and other crops, are essentially benefited . hoeing in dry weather, but the reason why, or the manner how it is done, is not so generally understood. That moisture is formed by stirring the dry particles of earth and changing their relative positions, is generally admitted.

Water is composed of oxygen and nitrogen. These substances are also contained in different proportions, in the earth and atmosphere, and are, to some extent, formed by the action of different particles of earthy matter upon each other, when brought into contact, as done by hoeing. Water acts as a solvent of other substances, and holds them in solution so that they can be taken up by the roots, and made to nourish the growing plant. This is the reason why it is best to sow or plant seeds as soon as possible after the land has been plowed or harrowed. The different particles of matter coming together, form new relations and produce a chemical action, during which heat is evolved, and oxygen and hydrogen are generated, and caused to unite, and form water; which with other substances act upon the seeds and produces germination; and gives to the new-born plant a vigorous start into existence. After the soil has remained quiet for some time, these substances having exhausted their energy, by nutralizing the powers of each other, the plant having absorbed all the elements of nutrition within reach of its roots, its growth becomes retarded, and can only be restored by renewing the chemical action. This can be done by applying some compost manure or by hoeing or stirring the earth, so as to bring different particles into contact with each other and forming new combinations, and consequently, thus producing a further supply of nutritious matter. Corn, that is hoed every two or three weeks, will come to maturity sooner, produce more, and be better filled on the cob, than it will when treated in the usual way. We would recommend to our farmers, to select two or three rows in the field and hoe it regularly once in two weeks, and in the fall inform us of the results of their experiment.—*Anon.*

LONG AND SHORT MANURES.

An excellent article on this subject, quoted from the *Germantown Telegraph*, will be found on page 67 of the present number, but some of the arguments that should be understood, are not there given. Those who have long manures on hand in the fall, and have lands intended for use in the following spring which may be plowed in the fall, and which soils contain a sufficient amount of clay and carbonaceous matter to retain ammonia, may fertilize with long manures, deeply plowed under; for the decomposition of these manures will be sufficiently slow to insure the absorption and retention of all their ammonia by the supernatant portions of the soil, and their slow decay will assist in aerating by giving free admission of atmosphere, while the spring plowing will elevate and mix the manures throughout the soil.

We do not advocate the use of long manures in spring, or at any time in sandy or very loose soils, unless those soils are black by the presence of carbon to receive and retain all the volatile gases which may result from the decomposition of the manure, but for soils that are plastic and clayey, requiring disintegration from the action of winter frosts, we would fearlessly recommend ridging and black furrowing, and the covering up in these ridges of long manures; for certainly the same argument which may be used for the admixture of inert materials of a carbonaceous character in the compost heap, apply with equal fairness to such soils as are capable of retaining ammonia, being fertilized with long or undecomposed manures.

For hoe crops, and many others requiring soil in find tilth, the decomposed manure should then be used in preference to the long, which, from mechanical causes, would interfere too seriously with the action of tools intended to disturb the soil, causing the undue disturbance of roots, breaking off their fibres, etc. But the treatment of manures to render them short, should be such in the compost heap, as not to permit the loss of ammonia, and all the facts in relation to such treatment we have before given, such as the arrangement of a pump, return of the drainage twice a week on the muck, and thus prevent *fire-fanging*, the admixture of decomposed swamp muck, and other carbonaceous matters capable of absorbing ammonia liberated during the fermentation. The slight use of dilute sulphuric acid or of plaster, or other sulphates capable of changing the carbonate of ammonia to sulphate of ammonia, will also do away with its volatile character.

The facility of adding the missing constituents of the soil to the general compost heap in solution is very great, many of which, particularly those of an alkaline character, will assist in the decomposition of the manure by softening the woody fibre, liberating the inorganic constituents, and rendering part soluble which otherwise would for a time remain comparatively inert.—*Working Farmer.*

For the New England Farmer.

SPRING---LOCUST TREES.

Mr. Brown:—Winter lingered so long with us in this quarter, cramping the atmosphere with cold and frost, that the early Spring made but slight impressions, and it almost seemed as if "the trembling year" would remain "unconfirmed;" but at length a decided change is taking place, and

> ——"surly Winter passes off,
> Far to the north, and calls his ruffian blasts."

For about a week past, we have been favored with frequent alternations of warm sunshine, and soft south winds with rain, infusing mother earth with a sudden impulse, changing her aspects as by magic,—the snow rapidly disappears, the brooks roar, the birds sing in varied melodies, and

> "From the moist meadow to the withered hill,
> Led by the breeze, the vivid verdure runs."

How rapid and striking the transition from Winter to exhilarating Spring! My friend, how rich, varied and important are the impressions we may derive from thoughtful observation of the Seasons. Beset as our life here is, with cares and influences tending at times to drag down our spirits and blunt our finer sensibilities, how fitting that we should often sequester our minds for a little season from the anxieties and eager pursuits of earth, elevating them to the contemplation of an ever-present Deity in His works, and reading the instructions they communicate. Especially in the delightful season of Spring may the mind be ennobled and refined by an attentive study of those works. This too is eminently the season to enjoy the productions of the great masters in poetry, and appreciate some of their most beautiful and sublime sentiments. Greatly may we cultivate and refine our tastes and sensibilities and quicken and enlarge our powers of observation and reflection, by an occasional communion with these grand authors. No matter what our situation or calling in life, we should undoubtedly rise to our high privileges as rational beings, and find time to exalt that immortal element within us to contemplations above and beyond the mere practical affairs of life. Strolling out of a fine morning in Spring, the mind all opened and awake to the impressions from Nature, and perhaps recalling some noble sentiment uttered by a master spirit when contemplating similar scenes, how much may what we then see and feel serve to strengthen us anew for the battle of life, and to rise superior to any depressing or withering influences that may beset us in our pathway. Can any sensitive man fail of being quickened and improved by such an experience?

> "When heaven and earth, as if contending, vie
> To raise his being and serene his soul,
> Can he forbear to join the general smile
> Of Nature? Can fierce passions vex his breast,
> While every gale is peace, and every grove
> Is melody?"

Reflections like the foregoing in part occupied my mind while walking out one of the beautiful mornings of the present week. But my particular purpose in taking that walk was to comply with an invitation from Mr. Solyman Cune, of this town, to observe his plantation of yellow locust trees, and the improvement of a very poor piece of land by the plantation; and the design which prompted me to take up my pen at this time was to speak of these trees, and their effect upon the soil.

This grove of locusts embraces about two acres of a rough, stony ridge of land, naturally of a light, thin soil, which had long ago been worn out by a previous owner, with successive crops of rye, so that when the land came into Mr. Cune's hands it would not bear grass, and was of no value for production. Mr. Cune had read that the locust tree would improve such land. In the spring season, about twenty years ago, he bought half a pound of the seed of the yellow locust, at a seed-store in Boston. As soon as the seed arrived at the farm he poured boiling water upon it, scalding it for a minute or two, then added enough cold water to reduce the temperature to about blood heat, and let the seed soak over night. It was then sown in drills in the garden, as one would sow beet seed, and it came up well. The little trees or sprouts were allowed to stand in the garden till the following Spring, when they were transplanted to the knoll where they now are. The transplanting was done by striking furrows with the plow, about twenty feet apart, then placing the little trees in these furrows, from five to eight feet apart, and covering the roots with a hoe. The land was then fenced from cattle, the fence remaining for about ten years, when it was removed, and the land has since been pastured.

During the last half of the period that the grove was fenced, an annual crop of hay was taken from the land—the crop yearly increasing in amount and improving in quality. The trees have grown finely, and many of them would now make the best of fencing-stuff. The land, which was not worth $10 per acre twenty years ago, could not now be bought for six times that sum. In addition to the value of the trees now standing on it, the land furnishes excellent pasturage,—the white clover predominating largely in the sward. The trees have greatly improved the soil by their annual deposit of leaves, which, lying still where they fall, coat the surface and keep it mellow and soft, and the sward open, so that the grasses do not become bound at the root, but afford a tender bite of pasturage, much relished by the cattle—inclining them to remain much in the grove, preferring the locality before any other portion of the pastures. The borers have occasionally destroyed a tree, but new sprouts have in such case invariably sprung up from the roots.

This grove is well worth looking at, and fully confirms the statements I have heretofore made in the *Farmer*, relative to the improvement of poor land by planting it with the locust tree. This, in my judgment, is one of the cheapest and best of modes for improving rough stony lands of a thin soil, or old pastures which refuse to give a bite of grass, and are too steep or far from home to be accessible with the plow and manure cart. There are numerous acres of worn-out pasture lands in New England which may unquestionably be improved by planting them with the yellow locust.

In passing over Mr. Cune's farm, I noticed several good apple orchards have been started, which bear evident marks of the owner's skill and taste as an orchardist, and which at no distant day will add materially to the income of the farm, and to its money value. Mr. Cune is considerably engaged in the nursery business, and has an excellent stock of young trees of approved varieties of the apple and pear. Persons in this region desirous of commencing young orchards, would do well to look at his nurseries before procuring trees at a greater distance.

F. HOLBROOK.

Brattleboro', *April* 18, 1855.

HOW MUCH MANURE DO WE USE ON AN ACRE?—An acre of land contains 43,560 square feet, 4,840 square yards, or 160 square rods. By those who have used guano, it is said 300 pounds is sufficient to manure an acre; 302½ lbs. would give just one ounce avordupois to the square yard. One cubid yard would give a trifle over one cubic inch to the square foot. A cubic yard of highly concentrated manure, like night soil, would, if evenly and properly spread, manure an acre very well. A cubic yard of long manure will weigh about 1,400 lbs.; a cubic foot not far from 50 lbs. A cord contains 128 cubic feet; a cord and a quarter would give about a cubic foot to the square rod. If liquid manure be used, it would take 170 bbls. to give one gill to a square foot upon an acre, which would be equal to about 50 pipes or large hogsheads. It would be quite useful if farmers would be a little more specific as to the amount of manure applied.—*Rural New-Yorker.*

For the New England Farmer.

GUANO AND OTHER THINGS.

MR. BROWN:—I wish to make a few inquiries through the *Farmer.*

1. If the same worth of ashes is applied to the ground as that of guano, will it have as good an effect?

2. If the same worth of plaster is applied, will it do as much good as guano?

3. If the same worth of slaked lime is applied as of guano, will it have the same effect?

4. Which are the three best kinds of potatoes planted in New England?

5. Which is the earliest kind of corn? Let me know where the potatoes and corn can be got, and prices?

6. What breed of hogs and hens is most productive and profitable?

7. If the ashes, plaster and lime are mixed in equal parts, will they have as good an effect as guano or superphosphate of lime?

8. Is there any improved plow for use on rough, stony and steep land, for sale in Boston? I have seen and bought some fourteen plows of different patterns, but as yet have got none equal to the old style. Why do not some of our scientific farmers and mechanics make improved tools for rough, stony land, as well as for the smooth flats?

By answering the above inquiries you will oblige many New Yorkers. S. W. REINALDS.

Petersburg, Rens. Co., N. Y., 1855.

REMARKS.—1. We believe the same money value of ashes on an acre of land, would be of more service than an equal cost of guano. 300 pounds of guano would cost $9; at a shilling a bushel, nine dollars would bring fifty-four bushels of ashes.

2. It depends so much on the condition of the land, that any reply we could make would shed no light upon the subject.

3. On some soils, as a rich loam where a crop of wheat was to be taken, we should greatly prefer the lime. On a dryish, sandy loam, we should prefer the guano.

4. The white Chenango has been the favorite in Boston market for several years—but the disease has affected it so seriously for several seasons, that our people introduced various other kinds. Among the other sorts, the Peach-blow, Carter, Davis Seedling and State of Maine stand high.

5. The earliest corn is the Jefferson, and is sold on the ear at $2 a hundred; the potatoes at from $2 to $3 a bushel, and sold at the seed stores in Boston.

6. Hogs, half Suffolk; hens, a mixture of the best you can find.

7. Do not mix these substances.

8. There are plows in Boston suitable for all sorts of land.

For the New England Farmer.

PLUM TREES—TAP ROOT—POTATOES.

MR. BROWN:—I have now been in this country, (from England,) two years. I have purchased your paper every week, and do still, and if every farmer in the United States does not get it, they ought to, as it is full of information. I have travelled through Europe and part of Asia, and am always glad if I can do good to any country I pass through. I see in your Saturday's paper, headed "Sucker Plum Trees," Mr. Smith has answered that fully and satisfactorily as regards suckers, for you must never expect fruit, at least good fruit, from below the graft, but there are cases where even grafted trees blossom and not bear fruit, and in this case, ninety times out of a hundred, the tree has a tap-root, and if so, do not expect much fruit, but dig down and see if there is a tap root; if so saw it off, and saw it close to the ball of the tree; but no tree if properly planted can have a tap root. In France, Belgium and England they place a slate or flat stone, and plant the tree upon it; by this means, the roots branch out, and you can have no tap root. You must never expect to raise fruit from suckers. When Mr. Cobbett left Long Island, (he was a great agriculturist) he did all he could in England to raise or produce that beautiful apple, (I think you call it the Newtown Pippin;) he took grafts with him and grafted them on Paradise stocks, viz., stocks raised in England from the pippins of apples. Some of them he let grow three years, and wrote back to Long Island for more grafts. When he got them, he cut off those which had grown three years, and grafted again with his newly imported ones from Long Island. They grew and fruited, and were good apples, but not to be compared to what he had in Long Island, and he very truly said it was American air and land. We cannot produce apples or pears in England, equal either to you, France or Belgium.

I will now say something about potatoes, which Cobbett railed so much against; for the last eight years, the farmers have adopted a system, (and I am proud to say that I was the originator of it) which is within every poor man's grasp; viz., when the potato is kept for seed, throw it into ground plaster; in England we use fallen lime, or hydrated lime in powder: the cut side takes up the lime, and prevents its exhausting itself in the earth; it prevents wire-worms, snails, or other vermin attacking it. I see that small potatoes are sold for seed; they may do well, but I prefer a good sized potato set, that is a potato of good size, cut in two or three, pieces, and leave two eyes or sprouts; but even in the small potato set, I should recommend a small portion chipped off and thrown into plaster or lime. If you wish to prevent disease, always plant your potato with *the cut side up;* try it on a small scale. if you like, but you will plant the whole field next season *cut side up.*

AN ENGLISH FARMER.

Fall River, April 24. 1855.

For the New England Farmer.

THE DAWN OF MAY.

O, the sky is blue, and the sward is green,
And the soft winds wake from the balmy west!
The leaves unfold, in their gilded sheen,
And the bird in the tree-top builds its nest!
The truant Zephyr light plumes his wings
Once more, and quits him his perfumed bed;
Soft calls on the sleeping flowers to wake,
And sportive roams, e'er each dew-clad head!

The *Blue Bells* nod them within the wood,
The *Snow Drop* peeps from its milky bell,
The *Motley Thora* bends her hood,
Whilst beauteous wild flowers line the dell!
The *Wild Briar Rose* its fragrance breathes,
The *Violet* opes her cup of blue,
The timid *Primrose* lifts its leaves,
And *King Cups* wake, all bathed in dew!

From flower to flower the wild bee roams,
Then, buried within the cowslip's cup,
He murmurs his low and music tones,
'Till she folds the wanton intruder up!
The spring bird, wakening, soars on high,
Gushing aloft its melting lay,
Whilst painted clouds flit o'er the sky,
All ushering in the dawn of May!

Like a laughing nymph, she springs to light,
And tripping along, in her world of flowers,
Brushes the dew in the morning bright,
And weaves a joy o'er each heart of ours!
With frolic hands, the *Daisy* meek
From the lap of green she playful throws,
Whilst the loveliest flowers spring round her feet,
And fragrance bursts from the wild-wood rose!

O, then glad is the heart, as through leafing trees,
The soft winds roam them in music play;
Whilst the sick come forth for the healing breeze,
And rejoice in the birth of the beauteous May!
And glad is the heart of the joyous child,
As bounding away through the tangled dell,
It roams 'mid the flowers, in green broods wild,
And hunts the caged bee in the cowslip's bell!

O, bright is this world! 'Tis a world of gems!
And loveliness lingers where'er we tread!
On the mountain-top or in lone wood glens,
A spirit of Beauty o'er all is spread!
Then warmed be our hearts to that kindly Power
That scatters bright roses o'er life rough way—
Who unfolds the cup of the snow-drop's flower,
And mantles the earth with the gems of May!

For the New England Farmer.

ABOUT THE STATE OF MAINE POTATOES.

Mr. Editor:—The potato called the State of Maine, is a seedling raised first by D. Bearce, of Hebron, Me.,—known in this State, as the "Bearce Potato." They are raised to some extent in Hebron, Minot and Poland; and called, by the inhabitants of the above places, the best of anything called Potato. Seeing them advertised for seed by M. Tombs & Co. in your valuable paper, I thought I would make the above statements, together with what I know of them as to quality &c.

And first, we think they are the best for the table of any kind we ever raised, and second, sell the highest in market. The first I raised, I planted two bushels on green sward without dressing; harvested fifty-eight bushels very nice potatoes, which was two years ago. Last season I raised five hundred bushels of them. One half acre broke up as late as the 10th of June, on which I put three and a half bushels seed, "small potatoes," yielded over one hundred bushels, and I think there would have been near double had it not been for the drought. One piece on light dry land did about half as well; another piece on moistish new land did better than either of the above; on this last piece one end where the drought did not effect them, fourteen hills filled a bushel, without dressing, except plaster.

I would advise those who plant them to choose a moist situation; and not to hurry about planting till the ground is suitably dry, then plow deep, and plow in the dressing, if barn manure is applied. Plant no deeper than corn, and *seed light*.

My method has been, for the last eight or ten years, in the cultivation of potatoes, to hoe soon after they are up, stirring all the ground to kill the weeds, and then when they are large enough hoe again, making a small oval hill, say as large as a half bushel, if the ground is dry; broader and flatter, if moist, narrower and higher.

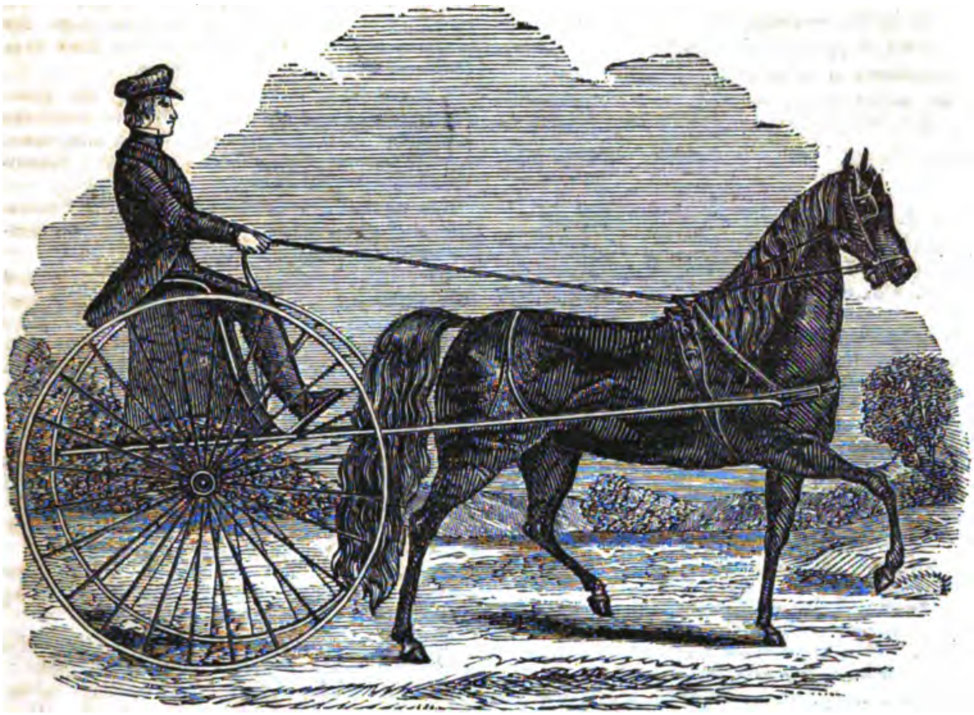
I have for this length of time used for seed small potatoes, with the exception of a bushel or two large ones for experiment sake, and am satisfied the small ones do as well as large, if I am careful to seed light, say about six bushels to the acre. I cut all my potatoes for planting, those as large as an egg or larger in four, and those smaller in three and two pieces, putting two pieces in the hill. I never furrow for planting; I used to, and got them too deep. My crop usually averages about two hundred bushels per acre, sometimes more, hardly ever less.

W. A. Tobies.

Mechanic Falls, April 23, 1855.

PRACTICAL EFFORT.

The question is occasionally asked our agents whether the editor and the writers for the *Farmer* are practical men? They do well. Theory and practice are quite different things—in agricultural operations they ought to go together. One may form a plausible theory, and find, when he brings it to a practical test, that it will not answer his expectations. Aware of this, the Proprietor has secured a corps of writers who are all, we believe, practical operators upon the soil—gentlemen who not only direct others, but labor with their own hands. The Proprietor himself, the Editors, and we think nearly every contributor, ladies and all, are owners, occupiers, and tillers of the soil,—and persons who at the same time study and endeavor to penetrate the arcana of the great art. They are not wedded to old customs and usages because they were observed by the fathers, and have the sanction of age,—but heartily embrace the new and useful, and keep the world moving and prospering, and transferring to the elements and animals an immensity of toil heretofore imposed upon human limbs. What we *preach*, we have mainly *practiced*, and feel confident of its truth.



MESSENGER BLACK HAWK.

The above cut represents the Messenger Black Hawk in harness; he was raised in Orange county, State of Vermont; his dam was sired by Bush Messenger, State of Maine; his sire was Black Hawk, making an extremely good cross, and giving in this case the size of bone and muscle incident to the Messenger breed, which are large horses, and still giving all the activity, style and beauty of movement which Black Hawk displays. The Messenger Black Hawk was three years old last August; he stands more than sixteen hands high; his color is jet black; his weight ten hundred and fifty pounds; his symmetrical proportions and beauty of form, his light and airy movement, cannot be surpassed in the world; he bids fair, thus far, to make one of the fastest trotting stallions in the country. He will be kept the coming season at the stable of D. T. Sargent, in Boxboro', Mass.

Also, will be kept at the same stable, the well known Bay State Horse; he was raised in Middlesex county, Mass., and will be five years old next June; his pedigree is Black Hawk and Morgan; his color is a very dark mahogany bay; his weight eleven hundred pounds; his colts are yet quite young, but enough has been seen of his stock to make him worthy of the highest honors as a stock horse; his colts, which are well known in this vicinity to very many good judges, are considered to be unsurpassed by any other stock horse in New England; one hundred dollars often, and in some instances as high as two hundred, have been offered for his colts four months old. As to the extent of his speed it is not known, but he is warranted to trot one mile in three and a half minutes on Cambridge Park, or fourteen miles in one hour.

These two horses, to say the least, will rank among the highest class of stock horses, and will be kept for that purpose for all who wish to raise fine horses.

Keeping will be furnished and due care taken of all the mares left or sent to the proprietor.

D. T. Sargent.

Munn's Practical Land Drainer.—This is another of Saxton & Co.'s excellent agricultural publications, containing, 1. The physical laws on which the drainage of lands depends. 2. The principles and system of drainage. 3. Examination of land preliminary to drainage. 4. The different systems employed—deep drainage explained, its use in cutting off springs, surface drainage explained, together with practical directions, levelling, form and depth of drains, filling up the cuttings after the drains are constructed, stoppage, syphon drains, and every thing that relates to the subject. A capital work—one that ought to be studied by every farmer. The work is illustrated by diagrams of all the forms of drains, and the tools necessary to work with.

A FEW FACTS FOR FARMERS.

And it may be as well for a few other classes to learn the same facts; and first, the great fact that of all trades and occupations, the farmer's is the only one that never suffers by "hard times," "commercial distress," "great fall of stocks," or any other of the thousand and one terms that tell of ruin to many of the denizens of the city.

It is a great fact that the farmers, as a class, are now the only class that is prosperous, while all other classes are groaning under the evils of depression in business, and want of employment of those who labor to live, and are dependent upon daily toil for daily bread.

At this very moment, while the laborers of the city are suffering for food, the farmer is realizing the highest prices he has received for many years for every description of farm produce. Think of whole droves of bullocks selling for over $100 each. What a price for beef! It is 11 to 11½ cents for every pound of meat in the four quarters, and the present week it is even higher than that.

Sheep, that will dress less than 56 pounds, have sold in droves at $5 and $6 per head.

Then, we pay five or six cents a pound for flour, and we butter our bread at 28 to 34 cents per pound. Potatoes—that indispensable necessary of an American table—are still dearer than bread or meat for human food.

In short, it is a fact that every product of American soil is selling at a price more remunerating to the laborer than any other laborious employment, and yet the earth lies untilled.

Thousands and tens of thousands of acres of rich soil, offered for sale at a trifling price, are lying as idle as they were a thousand years ago. Why is it so? Why do not these laborers raise their own bread and meat? Why do not farmers stick to their trade, and why do not others fall into that occupation?

We think we can answer.

The first grand reason is because there is a most abominably foolish opinion prevailing that any other employment is more respectable than that of a farmer. This false impression is quite as much owing to those engaged in the business as to those who are not. Children are taught from early ages, by mistaken parents, to look for some other means of livelihood than the "dirty business" of their fathers.

There is a continual longing to escape from the prison-house of the farm.

The natural consequence is, that all other occupations are full, and all in them, in their turn, are taught to look with contempt upon the farmer and his occupation.

The great evil is a want of pride of caste on the part of those who should hold the first rank in society—land cultivators. It does not follow because a man is a farmer that he should be a fool, or even a laborious drudge. None but a fool need be that. There is just as much room for leisure, study and improvement on the farm as in the store, office, or mechanic's shop.

If we could only contrive to elevate the character and standing of all who cultivate American soil, we should have not only a more numerous, but a more happy class of farmers. The difficulty now is, they are ashamed of their calling, and do not try to improve their condition; and therefore, sink down into drudges, working like cart-horses for their daily allowance of fodder.

This is the cause of scarcity of farm labor, and that scarcity produces the present high prices, without producing a corresponding profit to the cultivator. Why? Because he has to pay an extra price to induce labor to flow into that channel. He is in a constant struggle to keep up appearances, and rival his speculating neighbor, who is flourishing upon "borrowed capital," and generally does break whether he ought to or not. His children are bound to be "young ladies and gentlemen"—that is, idle and useless incumbrances upon the farm—and to despise their home, instead of loving and clinging to it forever.

Traced directly home to that cause can be the sad history of many of those who are suffering famine in the city at this moment.

There is another cause—another great fact for our farmers—the most of them are as ignorant of the first principles of their business as Hottentots. Thye dig and delve in the same path that their antiquated grandfather trod in the previous century, without ever thinking whether it is right or wrong.

Beside our own native ignorance that still persists in plowing the surface of land only two inches deep, so that it is drowned at one season and burnt to dust at another, we are constantly importing ship-loads of people more ignorant still than ourselves. With this native and imported ignorance, with only about one-half the hands that should be employed upon the farm, we are trying to grow food enough to feed the workers and idlers, and make large annual profits to invest in "stock" other than farm-stock.

With the present high prices, stock in a good farm should be the best stock in the world. That it is not, the fault is in the farmers themselves. There is certainly "a screw loose" in some of the machinery of society that needs a little tightening.

If it be a fact that the price of cattle which is now prevailing throughout the United States is in consequence of an insufficient number in the country, it is a fact which ought to make every farmer in America blush for shame.

Out upon the man that cries out upon the hard times and want of money, when he might have fifty bullocks for sale at $100 a head, yet has not one; perhaps has to buy his own meat.

We close with a repetition of this one fact, that there is no employment in the world more honorable, more respectable, or more honestly and certainly remunerative, than that of cultivation of the soil. The business only needs improvement.—*N. Y. Tribune.*

For the New England Farmer.

WORMS IN CORN-STALKS.

This worm is a great pest to the farmer, and, although the complaints of its ravages are not so long and loud as those made against the cut-worm, yet it is none the less destructive to the interests of the corn-grower. As no article in any of the agricultural journals relating to its history has met my eye, and finding but few people conversant with its habits, you will pardon me for giving the results of my own observation.

Its color, when matured to full size, which is from one inch and one-eighth to one inch and one-quarter in length, is a bright red and slate color, interspersed with white. It deposits its eggs both on the corn and on the dry stover, and it is probable that but few kernels of corn germinate but what have one or more of these enter its germ. It is seldom that the stalk is wholly destroyed, but it will have a yellow, sickly appearance for a long time after its appearance above ground, until it shows the tassel, the top of which is generally covered by the worm's chips, besides the last or top leaves being perforated with numerous small holes. Some fields are injured in the above manner more than fifty per cent.

The remedy for this devastator is very simple, being merely to plant the corn near the surface of the ground, and be sure and not hill up any at the first hoeing. I have never seen corn dropped in the bottom of the furrow, or covered very deep, but what was more or less affected by its operations; and, by the way, I have never seen any thing that would stop the ravages of the cut-worm so effectually, as to pull the dirt entirely away from its roots, as the worm cannot or will not work much above ground.

Any one who has made much observation on this subject, will remember that worms always work the most destructively just after the corn has been hoed. When corn has been favorably started, it grows faster than the worm gains strength, and will throw it out previous to the appearance of the tassel, the worm being then about one-half or three-fourths of an inch long. I have counted, in once crossing a field at this stage of the corn's growth, as many as thirty or forty just coming into daylight. Perhaps Dr. HARRIS can favor us with some light on this subject. CORN-GROWER.

Hanson, Feb. 7, 1855.

For the New England Farmer.

PEACH CROP AND COLD.

MR. EDITOR:—In the *Farmer* for March 24th is an article under the title, "The Peach Crop," stating some facts with regard to the loss of the peach crop in Connecticut, a few years ago, in different localities, and under very different degrees of cold; the writer concludes with two inquiries:—"Who will inform the public where the exact frost line of the peach is?" Another question for the curious is, "At what temperature the peach tree is killed by the frost?"

Permit me to say, that there is no "exact frost line of the peach." Peach trees, and other trees, may be killed by a degree of cold at one time, which would not in the least injure them at another. While residing in Massachusetts in 1831, my peach trees were not injured by the extreme cold in the least, but bore an abundant crop the following year. A few years later, I lost most of my peach trees, especially the smaller ones, by a degree of cold much *less* intense. In the former case, the cold increased *gradually*, and continued intense for a long time; in the latter case, th change was sudden, and came on in a few hours, after a month of *spring-like* weather, during which the buds of the trees had swollen, and the bark had become loosened from the wood. My orchard was situated in a warm valley. I lost several young apple trees at the same time, and from the same cause. Peach trees in colder situations were not killed. I have, since that time, given considerable attention to the subject, and have noticed that trees are injured much more by the state in which the buds and bark are, when the cold takes place, than by the mere degree or intensity of the cold. Trees may be destroyed in New Jersey, when they are not injured in Massachusetts, though the cold is much more intense, in the latter place at the same time.

ORLEANS.

Brownington, Vt., March 26, 1855.

THE PHILOSOPHY OF RAIN.

To understand the philosophy of this beautiful and often sublime phenomenon, so often witnessed since the creation of the world, and so essential to the very existence of plants and animals, a few facts derived from observation and a long train of experiments must be remembered:

1. Were the atmosphere everywhere at all times of a uniform temperature, we should never have rain, or hail, or snow. The water absorbed by it in evaporation from the sea and the earth's surface, would descend in an imperceptible vapor, or cease to be absorbed by the air when it was once fully saturated.

2. The absorbing power of the atmosphere, and consequently its capacity to retain humidity, is proportionally greater in warm than cold air.

3. The air near the surface of the earth is warmer than it is in the region of the clouds. The higher we ascend from the earth the colder do we find the atmosphere. Hence the perpetual snow on very high mountains in the hottest climate.

Now, when, from continued evaporation, the air is highly saturated with vapor, though it be invisible and the sky cloudless, if its temperature is suddenly reduced by cold currents descending from above, or rushing from a higher to a lower latitude, or, by the motion of saturated air, to a cooler latitude, its capacity to retain moisture is diminished, clouds are formed, and the result is rain. Air condenses as it cools, and, like a sponge filled with water and compressed, pours out the water which its diminished capacity cannot hold. How singular, yet how simple, the philosophy of rain! What but Omniscience could have devised such an admirable arrangement for watering the earth.—*N. Y. Observer.*

☞ The name *tulip* is derived from the Turkish, and the flower is so called from its fancied resemblance to a turban.

☞ We find the following beautiful poem making the rounds of the newspapers, without any author's name attached to it. If we knew the name, we would gladly pay it the tribute which so finished lines merit.—*Ex.*

FLOWERS.

O! they look upward in every place
  Through this beautiful world of ours,
And dear as a smile on an old friend's face,
  Is the smile of the bright, bright flowers!
They tell us of wanderings by woods and streams;
  They tell us of lanes and trees;
But the children of showers and sunny beams,
  Have lovelier tales than these.

They tell of a season when men were not,
  When earth was by angels trod,
And leaves and flowers in every spot
  Burst forth at the call of God;
When spirits singing their hymns at even,
  Wandered by wood and glade,
And the Lord looked down from the highest heaven,
  And blessed what He had made.

That blessing remaineth upon them still,
  Though often the storm-cloud lowers,
And frequent tempests may soil and chill
  The gayest of earth's fair flowers.
When Sin and Death, with their sister Grief,
  Made a home in the hearts of men,
The blessing of God on each tender leaf,
  Preserved their beauty then.

The lily is lovely as when it slept
  On the waters of Eden's lake;
The woodbine breathes sweetly as when it crept
  In Eden from brake to brake;
They were left as a proof of the loveliness
  Of Adam and Eve's first home;
They are here as types of the joys that bless
  The just in the world to come.

For the New England Farmer.

EXPERIMENTAL FARMS.

Messrs. Editors:—It strikes me that the notion of "experimental farms, under the superintendence of county societies," advanced by several gentlemen at the closing discussion of the Legislative Agricultural Society, is worthy of more distinct development. It is admitted on all sides that practical experiments are the only sure guides to knowledge in agriculture. Who are so competent to direct these experiments as those chosen by the people to manage these societies? Suppose a farm to be under their care, their first effort would be to determine what crops could be grown thereon to best advantage. Will it be said that no farm can be managed, under such guidance, so as to sustain itself and make both ends meet? We will not for a moment indulge this idea. We do not believe the associated wisdom of a number of men is so inferior to that of an individual. We know of many farms, under individual direction, that yield a handsome income, quite equal to the best of the stocks in the market.

We think the legislature, when they required the funds of societies to be invested in *dividend-paying stocks*, thereby indirectly *slurred* the business of farming. The probability is, this clause was inserted in the act by some one who knew no other way of getting money except by loaning upon interest. Now, if farming is worthy to be pursued as an occupation, then the lands cultivated are good and sufficient security for the investment, and there can be no hazard in their investing the funds of societies—especially when the condition of the grant is, that the amount granted shall be *doubled* by the society receiving the grant. We have not time to pursue the development, but hope it will be taken up and practically illustrated by those interested therein.

April 12, 1855. Essex.

For the New England Farmer.

GOING TO THE CITY.

Billy Gray, in Boston, John Jacob Astor, in New York, and Stephen Gerard, in Philadelphia, are but specimens of what poor boys have become in all our large cities,—and what others have done, "Why, with patience, may not I?"

Such reasoning influences the minds of multitudes of young men. They know, to be sure, that but one of many hundred thousands become thus rich and distinguished; yet each feels that there is a chance—a possibility—that *he* may be that one; and this is enough to encourage hope, and to keep dissatisfaction with home constantly gnawing at his heart. Now, so far as mere chances are concerned, there are probably several hundred that your lifeless body will be fished out of the docks before you have been in the city a week, to one that you will ever become a Billy Gray. Yet there *is* a chance! So there is a chance of becoming a Washington, a Buonaparte, a Cæsar, by enlisting and turning soldier; and there is a chance of drawing the highest prize in a lottery by buying a single ticket.

But my object at the present time is simply to ask for the re-publication of a paragraph that I noticed in the Police reports of the *Evening Traveller* of Monday, last week. Such statements are so common that they are seldom copied by the weekly papers. The news editor of the weekly *Farmer*, who allows nothing new and rare to escape his scissors, made no note of this report. I ask, therefore, that my country friends will give it a particularly careful reading, not that it is anything rare or wonderful, but because such statements by our police are so common, that thousands who may read it here, would probably never have seen it at all, had it not appeared to me worthy of preservation. It is as follows:—

"For some time past, workmen from the country have flocked into the city in search of employment. In many cases they are totally destitute of funds, and when night arrives are obliged to take refuge in the different Station-houses. Last night there was no less than *Forty-five* applications for the lodgings at the different Station-houses, many of whom were of this class. . . . . A man was found by the sixth Station Police sound asleep near the Old Colony Railroad Freight Depot, South Boston. He was taken to the Police Station, and said he had walked in from East Randolph in search of work. He had not a cent of money with him, and seemed very thankful when supplied with food."

If these forty-five individuals had been fortunate enough to secure good situations and great wages, instead of lodgings in the Police-stations, all their friends and acquaintances would have been informed of the fact without my assistance.

A City Mechanic.

Boston, April 21, 1855.

PHYSICAL MORALITY.

The word of God, in specific language or in implied direction, commands a life of temperance in food and beverage, a strict restraint upon the licentious appetites, regular industry and labor, cleanliness of person and apparel, and observance of frequent days of rest. The general moral sense of mankind has given to most of these rules an independent sanction. Now, although the result of such physical morality is not the sole object of its injunction in Scripture, nor are all the consequences clearly foreseen, where the unaided moral sense enjoins it; yet the sure tendency of such observances is to bring the entire body to that state where all its parts of blood and bone and muscle, of sensitive nerve and organic functions, are fitted in their separate and mutual action to give the frame its highest powers of strength and endurance, and fitness for all the peculiar purposes of existence: and in the mere physical consciousness of this healthful existence, there is a physical happiness. It is not merely the absence of pain and uneasiness, but a positive feeling of buoyancy and exhilaration. And just in proportion as those laws are not observed, there is a corresponding loss of their physical rewards, and a gradual sinking into positive suffering and disease. Even as we walk the streets we meet with illustrations of each extreme. Here behold a patriarch, whose stock of vigor threescore and ten years seem hardly to have impaired. His erect form, his firm step, his elastic limbs, his undimmed senses, are so many certificates of good conduct; or rather, so many jewels and orders of nobility with which nature has honored him for his fidelity to her laws. His fair complexion shows that his blood has never been corrupted; his pure breath, that he has never yielded his digestive apparatus for a vinter's cesspool; his exact language and keen apprehension, that his brain has never been drugged or stupified by the poisons of the distiller or tobacconist. Enjoying his powers to the highest, he has preserved the power of enjoying them. Dispite the moral of the school-boy's story, he has eaten his cake and still kept it. As he drains the cup of life, there are no lees at the bottom. His organs will reach the goal of existence together. Painlessly as a candle burns down in its socket, so will he expire; and a little imagination would convert him into another Enoch, transplanted from earth to a better world without the sting of death.—*Mercein's Natural Goodness.*

For the New England Farmer.

CULTURE OF STONY GROUND.

MR. EDITOR:—On looking into your paper, just come to hand, I find a correspondent inquiring in what manner "stony ground" can be most advantageously tilled. My answer would be, first remove all the *loose surplus stones* within one foot of the surface, and then proceed in the cultivation as though they had never been there. Will it be said, that it will be too much labor to do this? And, if the surface stones are once taken away, others will soon work up to take their places? Such has not been my experience. I know of as fine fields for tillage, that were once covered with a superabundance of such stones, as any other fields; and I cannot but think, that *any apology* for not removing them, must be the prompting of *a spirit of laziness.* To attempt to prescribe a form of *plow* or other *implement*, adapted to the cultivation of such land full of stones, would be a labor in vain. Better begin in the right way, and then labor will be amply rewarded. There can be no doubt that a portion of stones is beneficial to some crops; and that certain elements are added to the soil, by the dissolution and decay of stones, that improve it; but still, I do not think this improvement enough, to balance the inconvenience of having them in the way of the use of the best-constructed implements—such as the *Michigan sod-and-subsoil plow*—the *horse-hoe*—and the *best improved seed-planters* and *weeders.* AN OLD ONE.

Danvers, April 10, 1855.

For the New England Farmer.

THE TAP ROOT.

MR. EDITOR:—I notice in your last No., Mr. Hopkins' account of his experiments of removing the "tap roots" of his seedling pears. His trees were ruined. He says truly, "I had cut off the main source of the supply of moisture from the ground." You direct him how to thus mutilate his trees without destroying life at once.

Nature provides the "tap root" to give it "ballast" and to provide it with an unfailing source of moisture. It is said some trees will send down this root 60 feet or more in search of water. What a provision to provide against drought! and yet for the purpose of producing lateral roots we remove this most important part of the tree, as if Providence did not know how many lateral roots were needed to keep the tree in health—the poor tree, not having power to send down another "tap root," sends out numberless lateral ones to seek moisture near the surface, and in a time of drought it is crippled, and its fruit is imperfect. (*a.*)

By the loss of sight, the senses of hearing, feeling, &c., are quickened to a most miraculous extent, but what should we think of him who should put out his children's eyes to quicken their senses?

Don't let those interested in the sale of trees deceive us in this vital matter.

Our children will wonder at our stupidity, while chopping down our prematurely old orchards, and in their places raise trees as Providence made them "tap roots" and all.

Yours,

April 5, 1855. CONNECTICUT.

REMARKS.—(*a.*) It may be that a tree set with all its original roots would flourish better than one deprived of a portion of them; yet, we do not feel certain that such would be the case. It would be gratifying to see what progress our correspondent would make in taking up and transplanting a hundred apple trees which had been growing three or four years in the seed bed where they were planted! Not only the shades of night, but the chills of Autumn, we think, would overtake him before the work could be accomplished. *Nature* is generally a correct and clever old codger, we admit, but to deny that we have made considerable improvement upon her ways in several things, would entitle a man to the occupation of one of those pleasant little rooms in our asylums, where men and women of very ardent imaginations are found to congregate.

Why do we meddle with the young seedling at all? why not plant it in the orchard, as nature presents it? why bud, or graft, or prune, and thus prevent *the ways of nature?* Man has become altogether too presumptuous! He ought to be contented to eat crab apples and choke pears, and be thankful for them, instead of "seeking out many inventions" to turn the course of nature to his will. We have been taught, that to prune the roots of a tree is *sometimes* as beneficial as to prune the top: it is not so often done, because it is more inconvenient.

Our orchards are all *artificial;* the young seedling is lifted from its seed-bed, a portion of the tap root taken off, and then set in favorable positions where numerous lateral roots find free range and rich feeding grounds, and a rapid growth is induced. Under this treatment the tree may be easily—and safely—taken up and re-set, and such trees have not been more liable to suffer from drought, or to be blown over, than the ornamental or forest trees in their neighborhood. And so the peach, the plum, apricot, cherry, and nearly all other fruits, are improved by some sort of cultivation. Madame Nature is a comely and generous dame, but those good qualities do not entitle her to run altogether riot in her own ways; in a great many things she must be held in leading strings; sometimes we must touch a tap root, at others a topmost branch, make an original stock send up sap to be elaborated by leaves of our own choice, or perfect fruit of a different species from itself. We thank our Connecticut friend for his text, and hope the inferences drawn from it will be agreeable to him.

For the New England Farmer.

PLOWS.

Mr. Editor:—Your correspondent, "A Tiller of Hard and Stony Soil," asks a question in regard to "*plows*," which practice can only demonstrate. I can inform your correspondent that I have seen the "Michigan" plow work in sward stony land. It kept its place as well as any other plow. Have never seen it in old ground. I consider it the *only plow* for sward land. *Pulverization* is all that is *wanted* or *expected* of the plow. It is the most important implement in husbandry. Farming *begins* and *ends* with it. A poor old plow, poor plowing, and hence poor crops. Too much of this kind of farming.

A handsome slice furrow, by the common plow, will do for agricultural shows and premiums as exhibitions of skill; but the "double eagle plow" prepares the sward ground for immediate cultivation, and so breaks the furrow as to make it difficult to trace it. No grass here can grow between the furrows, and as *pulverization is the only object*, why will it not work well on old ground? Old plows, like the "diseased furniture" in the play of the Poodles, are abundant on every good farm. Good farmers keep up with the improvements; hence, the old plows accumulate, and have a certain value for firewood and old iron. I would say to your friend, there is nothing better than "eagle" and "double eagle."

Yours truly, H. P.

Brooklyn, L. I., April 6, 1855.

For the New England Farmer.

THE FLOWER GARDEN.

The following article I send to you, thinking it may induce others to do as I have done, and in so doing they will receive their reward. We have long taken the *New England Farmer* and it has always been a most welcome guest in our house.

In the autumn of 18— I met with a very severe domestic affliction. A long, dreary winter passed, spring came, and knowing as I well did that occupation affords relief to one in affliction, I resolved to spend my leisure moments in attempting to cultivate a few flowers. I applied to my husband, who offered me a nice, rich and highly cultivated little spot in our excellent vegetable garden. I took a few bottles of maple syrup and an old farm-horse, and drove to the house of an elderly couple about two miles distant, who, I had previously observed, cultivated flowers. I told the gentleman I was desirous of getting some plants to place in my own garden; the old man was evidently pleased to see me manifesting a taste for flowers, and gave me as he could spare. I think he only had a few varieties of pinks, some of the common roses, and a flowering almond, which was his treasure; he succeeded in getting a little root for me. Leaving the syrup with him, as he refused money, I returned home delighted with my prizes. Everything I placed in my little bed grew and throve finely. The cultivation of that little spot was to me a source of real comfort. In the autumn following, a lady sent me four tulip bulbs. I felt rich. I will just say my garden operations commenced between twelve and fifteen years ago. I had over two thousand tulips in blossom last summer, and with safety can say I have given away over a bushel of tulip bulbs. I have now twenty-seven varieties, besides all the bulbous roots that can be cultivated in our Northern clime. I have over twenty varieties of roses, comprising many choice ones, and an almost endless variety of the flowers, both perennials and annuals, cultivated in our gardens.

The pleasure I have derived from the tending of my garden has amply repaid me for all the labor bestowed upon it. Indeed the labor has been but a pleasure. My husband sometimes tells me about encroaching upon his grounds, but I find no difficulty in that respect.

I know many object to a flower-garden, or even to a border of flowers, on the ground of too much labor and expense. I will now state as nearly as possible, the amount of time and money expended upon my garden.

I never bought but two plants for it, namely, a trumpet honeysuckle, and a pink moss-rose, obtaining my shrubs and plants, by exchanging my own for those I had not, many being given to me at the outset; but I have had abundant opportunity to repay all such favors.

Now for the labor bestowed thereon. We have many shade trees about our house. I suffer the leaves that fall in autumn, to remain on the ground through the winter, as they afford some protection to the roots. I have a man rake them off carefully in the spring—it can be done in a few hours. My borders, containing bulbous roots, require no care in the spring, as I prepare them with my garden-rake in the autumn with my own hands. I then take two-thirds of the care of my borders through the summer, having the help of a man, perhaps an hour in a day while the weeds are growing rapidly; after that time I usually do all myself, and to me it is a most pleasant pastime. I am a farmer's wife, and not without an abundance of in-door employment, but my garden is my relaxation from labor; money would not tempt me to part with it. From the earliest crocuses and snow-drops to the latest autumnal flower, it is one continual pleasure. It is a very great advantage to children, too, giving them a taste in early life for the beautiful in nature. No one can deny that our hearts are made better by communion with the works of God.

I will add, that since I commenced gardening there has sprung up about our dwelling, trees bearing most delicious plums, cherries and pears; vines laden with the juicy grape, strawberries and raspberries, too, have each their proper place in some favorable spot. I would not willingly exchange my home for what it was before we cultivated fruits and flowers, and I believe any person that owns even a small amount of land, without being the poorer for it, can afford a little spot for ornamental gardening.

North Hartland, Vt., April 6, 1855.

Remarks.—In conducting the *Farmer*, it has been a leading object to present such articles in every sheet as should please and instruct women and young persons, as well as matter for the grave deliberation of the farmer himself. The effort has been crowned with success, as the letter from a lady and others which have been published, and numerous ones not intended for publication, will show. The whole subject of cultivating the soil is one of an intensely interesting character. It has a most attractive and instructive literature, embracing the poetic as well as didactic, allowing full scope for the imagination, and embraces something of nearly all the arts and sciences in its widest range. The commendation from women and young persons which we constantly receive are among the surest tokens that our journal is appreciated and is useful.

☞ A firm of produce dealers in New York have imported from France within a day or two, one thousand dozen of hens' eggs for domestic consumption.

A HINT FROM SHAKSPEARE.

Old Father Shakspeare knew every thing—at any rate, whatever most of us think of *now*, was thought of and beautifully expressed by him before. He says, "*There is a tide in the affairs of men, which, taken at the flood, leads on to fortune.*" If it is not flood tide now with the farmer, we know not when it will be.

Wheat is bringing $3 per bushel; rye $1,50; corn $1,20; oats 75 to 80 cents; butter from 25 to 50 cents a pound; beef steaks 20 cents a pound, and in proportion in quantity; lard 10 to 15 cents; hay $25,00; straw $16,00 a ton, and potatoes $1,25 a bushel.

Now is the time for farmers to take this tide at the flood by getting in just as large a breadth of all sorts of crops, as they can manure and tend well—no more, not a rod, if so, there will be a loss instead of a gain. Plow deep, manure highly, stir the surface often and tend well in every particular.

Money and labor are neither of them, at present, very high. Command, then, just as much of both as you can consistently, and with Heaven's blessing on your crops, you may reap a golden harvest to pay off mortgages, erect new buildings, or engage in other improvements on the farm.

This tide does not flow for *us* every year; let us use it while it lasts!

GRAFTING LARGE LIMBS.

We prefer, in grafting old orchards, to graft the young branches, or suckers, as some call them, which spring out of the limb. Wm. Cone, of Troy, Michigan, in a communication to the *Michigan Farmer*, on the subject of grafting and orcharding, recommends grafting the large limbs. He says, "when grafting old trees, cut the limbs very close to the body, say from four to six inches. Get your top down, you will soon see the benefit of it, You can never get a fine top from grafts set six or eight feet from the bodies. If you have to cut six inches through there, there is no danger if you *set scions* enough and keep it covered with wax.

In setting into large stocks, don't split your limbs square across, (but make several splits on the outside centering inward like the spokes to a wheel.—Ed.) Be careful to set in scions enough to heal the outside as soon as may be, and you can then cut out what you don't need."

We have never seen Mr. Cone's method adopted among us, but presume where the tree is vigorous and thrifty it would work well. There is one thing we have learned by experience in grafting old trees, whether you graft at the ends of limbs six or eight feet from the body, or cut off to within six or eight inches of the body, you must look out to have leaves enough either on the grafts or suckers during the summer to elaborate sap wood enough to cover or sheath that limb over by the second year at least. We have seen grafts put into the extremity of an old limb, say four or five feet from the body. All the suckers were then carefully cut off, and kept off through the season. The graft grows well during the first summer, for the layer of sap wood, (alburnum,) made the season previous, conveys an abundance of sap to it. Its leaves elaborate this sap into new sap wood and send it down to form a new layer or sheath for the limb, through which the next year's sap may come up, but does not form enough of it. The graft starts again next spring perhaps vigorously, for the old sap wood still conveys sap to it, but by fall it begins to falter, and during the next season it dies. This has been the case with some old limbs in our own orchard, that had been grafted and so managed, and on cutting off the limbs and stripping the bark off, we found that the successive layers of new sap wood, (alburnum,) did not cover or sheath over the limb, and hence, probably, the death of the whole.

For the New England Farmer.

PRUNING AND GRAFTING FRUIT TREES.

Mr. Editor:—As there is the widest diversity of opinion on the subject of pruning, I beg leave, after some pretty severe experience, to state, that I do not think it of so much consequence when it is done, as how it is done.

That the growth of young trees will be checked for the season, if they be pruned in the month of June, no one who has had any experience, will deny. I am not speaking particularly of the apple tree. Aside from this, I can perceive no marked difference in the effects, provided they be subsequently treated as they should. The man who will go into an orchard with his axe and saw, and use them freely without any further care will dearly pay the penalty.

I purchased an old orchard seven years ago, of seventy trees of pretty large size, but which had never been grafted and had been much neglected, for want of pruning, or had been barbarously mangled with an axe, or badly injured by the borer. A few trees had been grafted two years previous, but had received no subsequent attention. Under these unpromising circumstances, I commenced grafting and pruning, and think I can sum up my experience and opinion in a few words, and with some degree of confidence.

I found that I could graft with best success in March, and the early part of April, provided I could find a day sufficiently warm to cause the wax to adhere to the wood, which will not take place, if it is cold or wet. Special pains should be taken to press the wax close up to the wood and around the scion; wax is much better made of hog's lard or linseed oil than of tallow, as the latter is more apt to crack and peel off. I use it softer than most grafters. If a tree is inclined to decay, graft in some vigorous wood, such as the Baldwin. Do not graft the Roxbury Russet and Rhode Island Greening into very tall trees. In an old tree, if a large limb be unsuitable for grafting, let a shoot spring up perpendicularly and wait a few years, till it be ready to graft. Prune as little as possible the first year of grafting; very sparingly the second, and then in such a way as to have the limbs shaded as much as possible. It is difficult to make scions live when the limb has been exposed to the scorching rays of the sun. I lost three trees by employing a man to graft, who cut off all the branches, under the mistaken impression that the sap would be forced into the scions. Instead of this, congestion of the sap took place, and fermentation and death was the result.

In regard to the time of pruning I have done most of it in the months of February and March, when I could walk in among the trees on the snow-drifts, which are usually high enough here for that purpose. The waxing I have put off till the latter part of April or May. I prefer to trim on the northern side of the tree first, and leave the southern branches for a shade as long as possible. There is nothing so tempting as a desire to trim out a tree when first grafted.

In cutting off large branches, which sometimes is necessary, be careful to have the lower side, at least, cut close to the tree as possible. It will heal all the better and quicker. Have a plenty of grafting wax made quite soft and always on hand, and when the weather is warm, be sure and cover every wound on the tree, however small it may be. Here is where many an orchard is ruined by allowing the sap to flow down the bark and kill the tree. It would do you good to see two of my trees healing up which were split down several years ago. A very little attention at the right time every year is all that is necessary on this point. Wax over all the old grafts and wounds in the spring, that have not healed up, and occasionally visit the scions of the present year, and press up the wax to the wound where it cracks open. If shoots spring up near a large wound, do not be in a hurry about cutting them off. If they be in the way of the scions, head them in. I am not sure, but am inclined to think, that the borer will die if his hole be stopped up with grafting-wax. I shoulder all my scions in cleft grafting, knowing that they fit to the stock much better. For a splitting knife, a common shoe-knife ground out in the middle is best. Do not throw away a tree because it is hollow-hearted. Put in the Baldwin, and it may live and be productive as long as you may need it. If a scion barely lives the first year, better regraft.

As the result of my experience, many of my trees which I did not consider worth grafting, are now provided with handsome tops, and beginning to bear abundantly, and the whole orchard will not suffer in comparison with ony one in this vicinity. I bury up around them waste ley, bones, leached ashes, liquid excrements, chip and coarse manure, taking care to keep the ground mellow, and free from grass and weeds around the trunk. It is now rare to find a borer in the trees, or a worm in the apples.

One word about the black knot in plum trees. I have never seen it in this vicinity. How is it in the mountainous regions of Vermont and New Hampshire? N. T. T.

Bethel, Me., April 20, 1855.

Remarks.—The reader will observe that it is "dead winter" when "N. T. T." trims his trees. We think it would be much better done in October.

WOOD LAND.

Fifteen acres of wood and timber land will furnish a farmer his ordinary timber and wood for two fires. *Ten* cords of wood will suffice for any man to keep two fires the year round provided he has tight rooms and good stoves. We have kept two fires since the first of November in two large rooms, and have not yet burnt three cords of wood, and we can assure you that we like a good comfortable fire. The farmer should commence on one side of his lot, and cut the wood clean as he goes. In this manner the young shoots come up alike as they receive the sun alike. Now say there are thirty cords of wood to an acre, if he cuts ten cords of wood a year, it will take him three years to cut off the wood of a single acre—and it will take him forty-five years to cut the wood off from his lot of fifteen acres. At the end of forty-five years, he may go back to the first acre he cut, and cut thirty cords to the acre. On our ordinary up land, wood will grow to thirty cords to the acre in thirty years.

Thirty-four years since, we recollect of assisting in clearing fourteen acres of wood-land, and getting the same into winter rye. After the crop of winter rye was taken, it was pastured for a year or two, and then suffered to grow up. The growth was white oak, red oak, yellow oak, chestnut and maple. Seven years since that *same rye field* was cut over, and there was not a single acre of it but produced thirty cords to the acre! And this in twenty-seven years!

ANSWER TO QUERY LAST WEEK.

Prof. Nash, editor of "*The Farmer*," published at Amherst, will please accept our thanks for his kind and prompt reply to questions propounded to him in our last paper. His opinions are much as we expected to find them, and are worthy of careful consideration.

Amherst, April 25, 1855.

Editor N. E. Farmer:—Dear Sir,—I have been compelled to a hasty, and, to myself, unsatisfactory answer to your question; and, as I shall not issue another number under a month, I have no objection to your publishing, if you choose, the following, as an illustration of an idea, (perhaps it is but an *idea*,) which I entertain;—that land is long benefited by the addition of heavy composts, while it must soon feel the exhausting effect of crops grown by homœopathic doses of any thing. Three hundred pounds to an acre is less than three ounces to a ton of soil. If you take off crop after crop, and put on only three ounces to the ton of soil, where will be the soluble silica, the potash, the soda, the lime, the magnesia, the chlorine? all of which are removed in the crops; all are essential to the growth of plants; and next to none are returned in three ounces of manure. Yours truly, J. A. Nash.

A REPORT.

The past five years, we have cultivated two adjacent acres, similar in quality, an ordinary loam, as follows:—1856 to corn, 1857 to oats, 1858 to clover, 1859 to clover again, and 1860 to corn.

One acre has been dressed each year with 300 pounds of Peruvian guano, costing on the ground $9,00. The other has been dressed with four loads of manure, composted with ten loads of muck, five bushels of oyster-shell lime, and two bushels of plaster; the lime and plaster put with the muck in the fall, and the manure added in the spring. The cost of the latter dressing has been a trifle more than that of the former; but, as the labor has been done at times when our teams could not well be employed otherwise, we could about as readily furnish the compost as pay cash for the guano.

RESULTS.

	On Guanoed.	*On Mucked.*
1856. Corn and straw, worth	$50	$40
1857. Oats and straw	30	30
1858. Clover, hay and feed	30	35
1859. " " "	25	40
1860. Corn and straw	30	60
	$165	$205

James & Jameson.

Jamesville, Oct. 20, 1860.

ANOTHER REPORT.

Since 1860 we have cultivated the same acres mentioned in our report of that year, dressing each acre, in 1861, with ten loads of barn manure composted with ten of muck, in 1862 the same, in 1865 with 30 loads, half manure and half muck, no dressing the intervening years.

RESULTS.

	On Guanoed.	*On Mucked.*
1861. Corn and stover, worth	$40	$70
1862. Oats and straw	35	40
1863. Clover hay and seed	35	40
1864. " " "	30	40
1865. Corn and stover	60	70
	200	260
Add former results	165	205
	365	465

Difference $100, and the guanoed land not yet fully restored. James & Jameson.

Jamesville, Oct. 20, 1865.

SALT FOR ANIMALS.

Professor Simonds, Veterinary Inspector to the Royal Agricultural Society, observes, in relation to the action of salt on the animal economy, that "it is exceedingly beneficial in moderate quantities, but prejudicial in large ones. He thought horses might take with advantage from an ounce and a half to two ounces of salt, daily; but that an excess of it would render animals weak, debilitated, and unfit for exertion. Similar facts were applicable also to oxen, which accumulated flesh faster by the judicious use of salt, than without it. He cited Arthur Young and Sir John Sinclair, to show that salt had a tendency to prevent the rot in sheep. Prof. S. added, as his own opinion, that salt, by its action on the liver, and the supply of soda it yielded to the bile, led to a greater amount of nutriment being derived from the food. The substance, he said, was also well known as a vermifuge, destroying many kinds of worms in the intestines of animals, and conferring a healthy tone of action which prevented their re-occurrence. Several members of the R. A. Society, as Col. Challoner and Mr. Fisher Hobbs, stated that their experience led them to agree with Professor Simonds in regard to the value of salt for animals.

In reference to the mode of giving it, the practice of placing large lumps of rock salt in fields or yards, where it was always accessible to the stock, was mentioned with approbation. This practice is now adopted by many farmers in this country, and, after several years' trial, is preferred to the former mode of giving salt periodically. When animals are only allowed to have salt once or twice a week, it is sometimes the case that they eat too much at once; but, by having it constantly in their reach, they eat in such quantities as their systems require, and it assists digestion and promotes health and thrift.—*Albany Cultivator.*

For the New England Farmer.

FERTILIZERS AND FLOWERS.

DEAR MR. FARMER :—You talk about a great many things; some are *good* things and some very *pretty* things, and no doubt some very useful things. But some of us *know nothings*, away up here in *Vermont*, don't know much about them, especially by experience. Now we should like to be enlightened, and presume you can do it. In the first plan, then, about the fertilizers,—you have a great many large sounding names that wont enrich anybody's farm, such as poudrette, superphosphate, muriate, &c., but we don't care for the *name* if we can understand the *thing*. We wish to know what the difference is between those *big names* and real stone lime slaked and pulverized. Whether those "dear bought and far fetched" fertilizers are really so much better than those within our reach. (*a.*)

For planting potatoes on green sward of a sandy loam, what is the best manure and what quantity to the acre where sorrel will grow in abundance without any. (*b.*) What kind of trees for a *good* orchard, and where would you set them; on the hill where they would be most exposed to the bleak winds, or on a level spot where they would be as much out of the wind as possible, if you could have your choice. (*c.*) Now for the pretty rose bushes and charming flowers you tell of, how I should like some of them, if I was able. Can you not send me two varieties of the climbing rose and a few choice flower seeds for a two dollar bill and warrant them to live and grow well? We have hard winters here, five months good sleighing, and Jack Frost pinches hard, early and late. I know you are a good-natured sort of a man, you publish so many funny things. But I like this off-hand, easy, natural way of doing business, much better than the straight rules.

Very respectfully, MRS. S. P.
South Derry, Vt., April 19, 1855.

REMARKS.—(*a.*) Another letter from a lady. Really, we are highly honored, and as the subject is a delightful one to handle, we go to work with a decided relish. Now for the fertilizers. "Are they, really, so much better than those within our reach?" No, madam, not a whit,—not so good as those within your reach, *if you can reach enough of them.* Good barn manure composted with rich loam, or old meadow muck with other matter incident to the farm, is the best fertilizer known. It is applicable to, and will bring every crop we cultivate. Other, and concentrated fertilizers, are used, because we cannot obtain enough of the former. Phosphate of lime and super-phosphate of lime, are *bones* dissolved by an acid; guano is the excrements of birds, and perhaps the bodies of seals, sea lions, &c.; poudrette is manufactured from the waste matters of cities.

(*b.*) Old hay or straw, saturated in the barnyard, will be excellent.

(*c.*) Baldwin, Hunt and Roxbury Russet, Hubbardston and Northern Spy; on the plain, with deep plowing, constant cultivation and moderate manuring—but manure the crop well that you take off.

THE SLEEP OF PLANTS.

The way in which sleep is shown in the vegetable kingdom, is infinitely more variable than among animals. Man throws himself prostrate; some kinds of monkeys lie on their sides; the camel places its head between its forelegs; and birds roost with their heads beneath the wing. Beyond these are few remarkable differences. But in plants there is no end to the curious and beautiful diversity which rewards the seeker in nature's mysteries. Some plants droop their leaves at night, the flat part becoming flacid and pendulous. Others, of the kind called "compound," as clover and vetches, close their leaflets together in pairs, and occasionally the whole leaf drops at the same time. The three leaflets of clovers bring their faces to the outside, and so form a little triangular pyamid, whose apex is the point of union between the leaflets and their stalls. Lupines, which have leaves resembling a seven-fingered hand without a palm, fold together like a lady's half closed parasol. Chickweed raises its leaves so as to embrace the stem; and some species of lotus, besides many of its elegant family, the Leguminosæ, bring them together in such a way as to protect the young flower buds and immature seed vessels from the chilly air of night. These are only a few out of the many cases which could be instanced of change of position in leaves, whilst in flowers there seems to be no limit to variation. The greater part shut the petals at night, the stalks declining one side; but there are some which roll their petals back, and curl them up like miniature volutes. The sleep of such plants is probably unaccompanied by any external change. The same may be said of Campanalas, and other bell-shaped flowers of Cruciferæ, it should have been observed, are remarkably careless of repose. Their sleep never appears sound or even constant, for many successive nights, they seem restless, and in the morning always look dozy and uncomfortable. When flowers are overblown, or the plant if an annual is near its decay, the phenomena of sleep are very considerably diminished. In fact, they are only seen in perfection when the growing powers of the plant are in full energy. Deciduous trees—that is, such as cast their leaves in autumn—are in a sort of trance in the winter months. Flowers, too, lose their sensibilities altogether, when the period of fertilization is passed, as may readily be seen by inspecting a field of daisies early in the morning, before the dew is off the grass. The overblown one will be found wide open; those in the younger stages all crimson tipped and sound asleep.

EXTRACTS AND REPLIES.

ABOUT LOW LANDS.

I have a few questions to ask, and hope in doing so the readers of your paper and others may have the benefit of the replies.

1. Do we of New England fully appreciate our carse land? (*a.*)
2. Is it probable we suffer much loss by not getting two crops on such land instead of only one? (*b.*)
3. Would not the English method of trench plowing, instead of our practice, assist us more than any other method? (*c.*)
4. If trench plowing on our naturally good soils or carse lands, will increase their productive powers, do not we suffer much in experimenting with manure? (*d.*)

NORFOLK COUNTY SUBSCRIBER.

April 19, 1855.

REMARKS.—(*a.*) The word "carse" above is Scottish, and means low, wet land. This description of land in New England has not been considered as of much value until within some twenty years. A few persons had experimented upon it, and became convinced of its great productive capacity, as many as fifty years ago; but the public mind was incredulous, and is still so to a surprising degree, after having seen what some of our most repulsive bogs have done.

(*b.*) Two crops of grass are quite often taken from our reclaimed meadows, and where they are assisted by annual top-dressings, they will yield from two to three tons a year for many years in succession.

(*c.*) Trench plowing in England is much like what we term subsoil plowing here. Their plows are called "trench plows," and as is the case with ours, are of various sizes and construction. It is, undoubtedly, a great deficiency in our mode of farming that we do not plow deep enough, or make the soil, after it is plowed, sufficiently fine.

(*d.*) A greater depth of fine, porous soil than we usually find in our fields, would certainly make less manure necessary.

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PEELING HEMLOCKS

In December last we had a heavy wind with snow which did much damage in the wood-lots in this section, especially among the pines and hemlocks. I have quite a large number of hemlocks down which I thought I should let alone till peeling time. Some among us say that in order for them to peel well or at all, they must be trimmed and cut from the root, before the sap starts in the spring. Now if this be true, it seems worth while for it to be known generally. Have you or any of your correspondents had any experience on this point. If so, will you confer a favor on many of your readers by noticing it in your paper.

Gilford, N. H., 1855. W. B. WEEKS.

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APPLE TREES—SWAMP MEADOWS.

MR. BROWN:—I wish to inquire what is the best time for scraping and washing apple trees, and what is the best wash? (*a.*)

I have quite a large number of trees of good quality, but they do not bear very well. If I trim this spring, what is the best time for that? (*b.*)

I have a swamp that has been drained pretty well, but still is rather soft to plow; it has a great quantity of hardhack; I want to know how to get rid of them, and the cheapest and best way. (*c.*) Yours truly, from a subscriber,

Monson, March, 1855. C. H. B.

REMARKS.—(*a.*) Scrape and wash old apple trees whenever it is convenient. Dig for some eight or ten feet about them, manure liberally, and work it under. Keep the weeds down, and the soil light. Under this treatment the trees will soon yield their fruit.

(*b.*) Do not prune in March, April or May, but omit it until the last of June, or October. Quite small shoots or suckers may be taken off at any time.

(*c.*) Drain the swamp still more—then plow or bog, and get in a crop of potatoes; manure well, and lay to grass after the potatoes, and you will have no cause to complain of the results.

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THE WHITE BLACKBERRY.

Can you inform me where I can obtain the white blackberry; and also the retail price.

Weston, April, 1855. G. G. CHENEY.

REMARKS.—Of J. S. NEEDHAM, the originator, Danvers, Mass. Don't know the price. See Vol. 4, monthly *Farmer*, page 418, for an illustration.

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ANOTHER CORN PLANTER.

MR. EDITOR:—Permit me to describe the *Corn Planter's Cane*, made by a farmer in this vicinity the past week. It weighs four pounds; the corn-holder is at the upper end, and holds two quarts. It is worked by a motion of the thumb on the top of a lever which opens a trench half an inch wide, near two inches long, and the same deep, into which the same motion drops four or five kernels, that can be heard falling in a tin tube, and seen before the soil falls to cover; a piece of corn or other obstruction can at once be detected in the seed gauge. Cost near $2,50.

Grafton, April 23, 1855. N. S.

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SUMMER WHEAT.

In the season of 1852, on the 26th May, I sowed two bushels of wheat on two acres of land, and had 39½ bushels.

In 1853, I sowed 144 rods of land with wheat, the 28th day of May, and had 23½ bushels.

In 1854, I sowed 4 bushels of wheat the first week in June, and harvested the last week in August; hired it threshed with the machine, and cleaned it, and measured 64½ bushels.

The land was a moist loam, with a small quantity of clay; it had been planted the year previous with corn in each season, and manured with green barn-yard manure. Wheat, the Black Sea kind. Lewis Hall.

Dover, Vt., April, 1855.

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CURRANTS.

I wish to inquire through your paper which are the best varieties of currants and gooseberries for me to set, not so much for profit as for kitchen use. Our land is right for most any kind of fruit that will grow in New England. Wish also you would refer me, to some nursery where I can obtain a supply, and if you can, something of the expense. F.

Willimantic, Ct., 1855.

Remarks.—Among the red currants, the large red Dutch are very fine; the cherry currant grows large and beautiful, but it is intolerably acid. The New White Dutch is a superior variety—not so acid as the red Dutch, and quite large. They may be found at most nurseries.

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POUDRETTE.

Mr. Editor:—Can you tell me anything about poudrette? I have very little manure, and some land to put it on. Will the poudrette answer, with guano and ashes, plaster and superphosphate, in place of other manures? L. P.

Remarks.—Poudrette is composed of the night soil, sewerage and offal of the cities, and a genuine article is a first-rate fertilizer. Its use would not preclude that of either of the other articles you have mentioned.

For the New England Farmer.

EXPERIMENT WITH HEN MANURE.

Mr. Editor:—An objection made against the use of guano is that it "burns the corn" and prevents its *coming up*. Perhaps the following facts in relation to a kindred manure, may throw some light upon the action of guano, and suggest the cause and the preventive of the injurious effects complained of.

Some years since, I manured several rows of corn with the droppings of the hen-roost. The manure was placed in the hill, in pretty liberal quantities, and covered two inches deep with earth, on which corn was planted in the usual manner. A considerable portion of the corn failed to come up. The surface of the hill appeared dry and of a much lighter color than the surrounding soil, and the seed had undergone no sensible change, appearing as dry and hard as when shelled from the ear. Continuing the examination, the manure was found to be much augmented in bulk and completely saturated with moisture.

This then I supposed to be the cause of the mischief. The manure had absorbed so much of the moisture from the superincumbent earth, that the moisture remaining was insufficient to effect the germination of the seed.

Next year, profiting by experience, I saturated the manure with water before it was used. A layer of the manure was laid upon the floor and water sprinkled over it; then another layer and more water thrown on, and so on until the pile was completed, in a conical form, and a pailful of water applied. Next day on examining the pile, the manure still appeared dry. The process was repeated again and again, until the manure appeared to be sufficiently moistened. The quantity of water was much greater than I had supposed would be sufficient. The manure was used as in the preceding year. The corn *came up* well, and I perceived no ill effects from the "burning quality" of the manure. A. W.

Stephenson, N. Y.

For the New England Farmer.

PRUNING.

Mr. Editor:—It is not without some feeling of delicacy that I enter upon the subject above mentioned, when we have before us the opinions from such high authority as the lamented Downing and Cole, with a host of others we might name. But as the best writers disagree in some minor, if not some important points, and as my experience for the last twenty years has been considerable in the cultivation of almost every variety of northern fruits, I venture on the premises, with no desire to refute any man's theory, but to lay before the reader a few plain, practical hints and facts drawn from my own experience and observation. Perhaps there is no department in horticulture in which there is manifested so great a diversity of opinion as in the time for pruning. That there is a right and a wrong time to do this, all will admit; and although one may succeed tolerably well in pruning at an improper time, he is unable to calculate his loss by the deviation. Before a man commences to prune, he should consider well for what purpose, or what end is to be answered by the process. If a young apple orchard is to be pruned, the objects should be to take off such limbs as cross others, form a proper head, and add to the vigor of the remaining branches.

Now at what time is this to be done? Is it a short time before or after the sap begins to flow in the spring, with the certainty that it will ooze out at every wound, until past midsummer, and cause vermin, filth and rot? Is it at midsummer, when every leaf is a laboratory filled with the proper material, and every moment supplying the requisites for wood and fruit? The only reason given for the waste of so much vital nourishment is because the wound will commence healing quickly; but I would ask, is this of much importance, if the wounds can be so dressed as to exclude the possibility of rotting or leaking? Does it not look more in accordance with nature's laws to wait until the leaf and sap, having done their work in the branches, have descended to nourish the roots, leaving the top in a perfectly dormant state, to proceed with the work of pruning the branches, leaving the wound to the drying and hardening influences of the sun and wind, until near spring, when a coating of gum-shelac dissolved in alcohol, applied with a brush, will prevent all bad consequences, and the healing process will commence in time and proceed without interruption, until the wound is numbered among the things that were.

East Bridgewater. E. C. Holmes.

LABOR AND LUXURY.

No question at present more interests thinking men among us, than that of the high prices of provisions, and especially, of our own farm products. We have already adverted to it, in former articles, and suggested some of the causes which may have tended to produce the present extraordinary state of affairs, such as the diversion of labor from the farm, by the raising of armies engaged in the war in Europe, and the emigration to California and Australia. But beyond such causes, and deeper in the constitution of society itself, may be found another and more important, because more permanent agent in bringing about this startling condition of things; for we may well so denominate a crisis like the present, where the necessaries of life have in a few months increased two-fold in their prices, and that, too, in a country where millions of acres of fertile land are offered for sale, at one dollar and a quarter an acre.

It is plain that the labor which should be applied to the soil, is in some way wasted, or bestowed in a wrong direction, for we all know that the well directed labor of a small part of our population, *upon the land*, would produce a large surplus of all the common articles of food.

An extravagant style of living, a taste for what are properly called luxuries, and a withdrawal of labor, which belongs to the soil, to produce these luxuries—these may, we think, be regarded as prominent among the causes of what may be termed the permanent and gradual increase of prices. Let us give a simple illustration of the working of these principles in society, and of our meaning in the foregoing remarks. Suppose ten men, with their families, should establish themselves upon adjoining farms, on good soil, apart from the rest of the world, and with their wives and children, devote all their labor to the most judicious production of cattle, grain and the other common products which directly or indily support life. It is evident that at the end of a few years, this little society would be burdened with a surplus of such provisions, useless, so far as their own consumption is concerned. Again, suppose that, finding they required less than the whole of their crops and animals, for their own support, they exchange with other societies a part of their surplus, for better clothing and furniture and implements than they had before used; so far as better clothing and furniture and implements give them increased power to produce the necessaries of life, they would not lessen the annual surplus of their farms. They begin to give more attention to education, and the time of the children, and of some of the female adults, is taken from manual labor to be spent in a school. Still, as educated labor is more productive than uneducated labor,—as the civilized white produces more ten-fold, by his own labor, than did the savage Indian, on the same soil—the actual product of the labor of the whole society may be increased by this devotion of time to education. So, if one or more members of the association give their whole time to the invention and construction of improved implements in husbandry, and the like, the annual surplus still remains.

But now, we will suppose that some of our society with their families leave their happy valley, and visit foreign cities, and imbibe a taste for display and luxury, and undertake to copy, at home, the style of living they have seen abroad. One procures a carriage and horses, and persuades one of his neighbors to take care of his stable, and drive him and his family round the country for pleasure, while another builds an elegant house and devotes his whole time to ornamenting his grounds, and induces a couple of his neighbors to assist him in his schemes, while a third establishes a small theatre or opera, and entices a part of the young people of the society to turn actors, and the whole community to give a portion of their time to witnessing their performances.

The young ladies, we may suppose, having now some idea of fashion and dress, instead of taking part in the labors incident to farm life, such as making the butter and cheese, and taking care of the house, devote all their time at home to working collars and undersleeves and embroidering their skirts. Beside all this, each of our ten families, which formerly supported itself, and had a large surplus, sends abroad and imports two or three servants, no matter of what color or nation, whose business it is not to work on the land, but to assist them to dress, to cook for them, and wait at their tables, to run to the door when the bell rings, and the like.

A few of the society are still seen at work diligently on the land as formerly, but it is a discouraging task for them, while others are so gay and thoughtless, and apparently so happy, with their servants and horses, and fine houses, and stylish clothes, and it is hard to keep their hearts in their business, and they begin to pine for change in their mode of life.

Now look at our little community, and see an illustration of our leading idea. At the end of the year it appears that there are several families who have raised no crops. There is abundance of good land lying idle close by. The few who have labored on in the old way, have enough for themselves, and but little more. Instead of looking forward and providing a large surplus, when they saw the rest of the society wasting their time and substance, they have sympathized with the general feeling of contempt for their own calling, and have planted and reaped but little. But all must eat, and prices go up higher and still higher, and every body inquires why is it so, and looks abroad over the whole earth for an answer.

Our illustration is finished. It might readily be carried more into detail, but it seem to us so plain, that a wayfaring man, though almost a fool, may read it. The remedy is two-fold, and will be eventually wrought out. The more simple style of life which our republican institutions require, will become more respected, as it is, indeed, respectable. Our farmers will become a more influential class in society, and will claim their true position. Enlightened labor will, with aid of steam and animal power, become more and more productive, and our crops, produced at less cost, may be sold at lower prices.

In the meantime let us again urge on our own circle of readers, to make liberal arrangements for large crops the present season, in as much as, whatever we regard as the causes of the present crisis, their effects are likely to endure far beyond the next harvest time.

CULTIVATION OF MILLET.

Eds. Rural:—In your paper of April 7th I have read an article, under the head of "*Cultivation of Millet*," which, without an explanation, might lead some of your readers to embark in the cultivation of a crop in which they may be disappointed. There are the three species of *Panicum* cultivated as millet, besides two or three species of the *Sorghum* under the same common name.

Two of those species, *Panicum Germanicum* and *Panicum Italicum*, have round heads, much resembling what the farmers know as pigeon grass. I have cultivated these two varieties in Western New York, but did not find them profitable. The common or German millet grows with a stalk four or five feet high, as large as a wheat straw and coarser as feed for stock. The *Panicum miliaceum* grows about three feet high, with a broad leaf at each joint, the stalk terminating in a *panicle*, somewhat like a loose panicle of Poland oats. There are two varieties of this species, one having brown and the other yellow buds. This species is found to be more profitable for cultivation than the two first named. From the small size of the stalk and the great proportion of leaves, cattle and horses seem more fond of the straw of this species than they are of best timothy hay.

An acquaintance of mine, summer before last, raised one acre, from which he harvested and threshed thirty bushels of seed, and the straw he considered equal to three tons of timothy hay. I conversed with a farmer the past week, who raised it the last summer, who said "his crop was considerably injured by the drought, yet he considered it the most profitable crop he raised upon his farm, as both his cattle and horses were more fond of it than they were of his best hay." From the above, you perceive that the profit of the cultivation of this crop depends upon the species cultivated.—*Rural New-Yorker*.

For the New England Farmer.

THOUGHTS UPON SOIL ANALYSIS AND SPECIFIC MANURES.

BY HENRY F. FRENCH.

All plants, as well as animals, are composed of certain elements, known to chemists, which elements were created "in the beginning" and have continued to exist, in various forms, to the present time.

That atom, which is now part of a dew-drop, has been also, perhaps, part of the life-blood of man, and part of the sap of the vine. It may have helped to moisten Pharaoh's lips with wine, and possibly rolled down in a tear, on the cheek of the penitent Magdalen. That atom, like every other, has existed from the creation, and will continue to exist "till time shall be no more." The chemist can separate, and weigh and measure the elements which constitute the plant. He can tell us of what it is composed, and their just proportions. This he calls Analysis.

Then he examines the soil on which we would produce such a plant. It is manifest that the plant cannot grow, unless somewhere it finds the elements which compose it. The earth, the air, the water, must furnish every atom which makes a part of the plant. The chemist thinks he knows what comes mainly from the air, and from the rains and dews of Heaven. Although there are differences of opinion on this point, we will assume that, substantially, this is known, and that the only remaining labor is, to ascertain what the soil can furnish towards forming the plant, and to supply to the soil in the form of manures, what the soil does not already contain.

For example, phosphate of lime makes a part of every grain of wheat. We assume that the air and water will not furnish enough of this substance for a crop of wheat. We examine the soil, by a chemical analysis, and find no phosphate of lime, and nothing of which this compound can be made. Now, says the chemist, we must supply to the soil, what is wanting—phosphate of lime, in some form. This illustrates the doctrine of soil analysis and special manures.

This *theory* is perfect, and I have no doubt is practically useful, to a considerable extent. Of *what* practical utility it is, and how far special manuring, based upon analysis, does actually prove successful, are questions about which the great minds of this, and of other lands, are not yet agreed.

When we return to the land, in form of our common manures, the same elements substantially that were taken from it, in other words, when we consume our crops with our animals, and haul out from our barns and stables the product, we are pretty certain, both by theory, and by experience, that we supply the elements necessary for the new crop. If, instead of this, however, we were to return to the land the hay itself, and the corn and the potatoes in their unchanged forms, and spread them on the surface, or plow them in, we should expect no such beneficial results. And why should we not? The manifest reason seems to be that the hay and the corn and the potatoes, though possessing all the required elements for a new crop, are not in *the form* in which the plants can appropriate them readily. It is not enough, then, that we apply to the soil merely the elements of which the required crops are composed. There must be reference always to *the form* in which these elements exist.

We readily see the absurdity of literally following out these theories, although we often avail ourselves of them, to great advantage.—We see our cows, sometimes, chewing bones. We say, the poor animal needs phosphate of lime, she has been milked a long time, and milk contains lime, and so we give her some bone dust, which contains the phosphate of lime, and she eats it, and is cured of her determination to choke herself. So far, theory and experience seem to run together. But your heifer does not grow well. You know what a heifer is composed of, and according to the theory of supplying the very elements essential to the growth, suppose you offer her a quarter of beef! She ought to eat it, and thrive upon it, but she knows better. The beef has all the elements, or many of them, in it which she requires, but not in the right *form*.

These illustrations, absurd as they may, at first, seem, point to an important truth, and they make suggestions to which the chemist can give no satisfactory answer.

Chemical analysis may give us the elements of plants and of soils, but it fails often to give us information whether or not these elements exist in a form to be readily taken up in the growth of the crop. A diamond and a piece of pure charcoal of the same weight, give by chemical analysis, precisely the same results. There is known to chemists a class of substances called *Isomeric*, (from the Greek, meaning, literally, equal parts,) denoting bodies composed of the same elements in the same proportions, but of different appearance and properties. The theory most commonly received as to this matter is this. Every substance is composed of small particles, which lie in contact with each other, and are called *atoms*. Between these atoms are interstices or pores. In light bodies, the atoms are not so close to each other, and are not so well fitted together, as in heavy bodies. In steam, for instance, the atoms occupy 1700 times as much space as in water. These atoms, if they really exist, are so small that they cannot be seen by the most powerful magnifying glass.

We have a familiar illustration of the different forms assumed by the same substance, when we slowly cool a solution of saltpetre made in hot water, which will take the shape of crystals, whereas if suddenly cooled, it will assume no such forms. By what mysterious power Nature thus compels these particles to arrange themselves in a fixed order, and to assume these regular and beautiful shapes, the chemist does not pretend to understand.

Professor Mapes, in the April number of the *Working Farmer*, has well illustrated this subject in its application to fertilizers. Although, perhaps, the strongest advocate of soil analysis, and specific manures among us, he shows us the danger of relying on the chemist alone, for an estimate of the value of manures.

"The chemist tells us by analysis, that blood is composed of certain materials and water. All these materials exist in rocks, and may be separated from them.

Now let us suppose ten square yards of soil to be fertilized by 10 lbs. of bullock's blood, and another ten square yards of soil to be fertilized by the constituents which analysis shows to exist in 10 lbs. of blood, and that these constituents shall not only undergo the greatest degree of mechanical division by grinding, but they shall absolutely be placed in solution and applied to the soil, still, notwithstanding this great mechanical sub-division, the ten yards fertilized by the blood will yield double the amount of crop of that fertilized by the same constituents taken from the rocks.

As another instance. Should we fertilize one piece of land with the bones of an animal, previously heated to redness, so as to drive off the gelatine, fatty matter, etc., and leave phosphate of lime only, dissolving it before its application in sulphuric acid, and should fertilize another similar piece of land with the same amount of phosphate of lime taken from the rock as at the location at Dover, N. J., or Crown Point, Lake Champlain, and dissolve this also in sulphuric acid, we should find that the portion fertilized by the dissolved bones would yield a crop much larger than that arising from the use of dissolved phosphate from the rock.

This gives rise to the question. Does matter by its entering into animal and vegetable organisms, undergo any changes which are important for after progression, but which changes are not discoverable by chemical test or microscopic investigation? All experiments seem to prove that isomeric compounds, although chemically alike, so far as analysis is capable of discovering conditions, really do differ in their adaptability for appropriation in organic life, and thus the ingredients found in the blood or bone of an animal, between the time of its leaving the original rock and becoming blood or bone, may have occupied place in vegetable or animal life a thousand times, *at each of which assimilation, growth, and* *decay, it may have been more fully suited for its present advanced purposes*, and thus the phosphate of lime and other constituents of blood may differ in their applicability for re-appropriation, from the same materials in a less advanced state. We all know that when a plant or animal decays, or is consumed in any way, that its ultimates pass back either to the soil or the atmosphere, and are re-united in some new organic form ; no one particle is ever put out of existence—and may not this be the cause why many manures are to be found so much more effective than others of similar composition?

All know that the ultimates contained in a green crop, when applied to the soil from original sources, will produce no such result as is consequent upon the plowing under of a green crop.

We all know that night-soil, urine of animals, stable manure, etc., produce effects in vegetable growth not to be arrived at by the use of the some constituents direct from the rocks."

The article from which the above extract is made is entitled, "Advancement of ultimates by their use in organic Nature." I have placed in italics the leading thought suggested. Whether it be founded in truth or not, it certainly is ingenious, and plausible. If the atoms or particles of matter, which have once formed a part of a plant or animal, are thereby changed in form, so as to be more readily taken again into vegetable growth, it may be further interesting to inquire, by what processes, in the laboratory or out, these peculiar forms may be destroyed or preserved.

The idea that they are thus changed, and that neither chemistry nor any other science can detect the change, gives new support to the old fashioned notion, that experience is better than theory.

H. F. F.

ANIMALS FORETELLING THE WEATHER.

INSTINCT AND REASON.

It is said that the woodcock in New-Jersey is building its nest, this year, in open and moist places ; and old huntsmen predict in consequence that the summer will be a dry one. There was a time when science, or what was called such, laughed at signs of this description, as no better than "old women's tales ;" but though many of them are still unreliable, a larger observation of nature has taught that animals have an instinct, which not unfrequently becomes prophetic, as in this example. At last year's meeting of the American Association for the advancement of Science, a curious paper was read on this subject, by Mr. N. B. Thomas, of Cincinnati, who had, for several years, studied the habits of animals in reference to the indications which they might afford respecting the weather. He showed that birds, if the season was to be a windy or wet one, build their nests in sheltered places ; but, if it was to be dry, in localities more exposed ; that certain kinds of snails always came out, and crept up the limbs of trees several days before rain ; and that locusts, wasps, and other insects were invariably to be found under leaves, and in the hollow trunks of trees, hours before a storm set in.

The sagacity thus displayed, if we may call it such, seems to put the higher reason of man to shame. In vain do our most expert *savans* endeavor to predict the character of an approaching season, or even to foretell, a few days in advance, the condition of the weather. The woodcock that unerringly fixes its nest in the spot best suited for the coming summer, or the snail whose tubercles begin to grow ten days before the rain they are preparing to receive, appear, at first sight, to surpass the more developed men. But the inferiority of those lower orders of animals is in the quantity of their endowments, rather than in the equality ; they have a single faculty developed to an extraordinary degree, while man has, as it were, faculties almost infinite. In thus adaptizing each organization to its special position, the wisdom of the Creator is forcibly exhibited.—*Philadelphia Ledger May* 9.

For the New England Farmer.

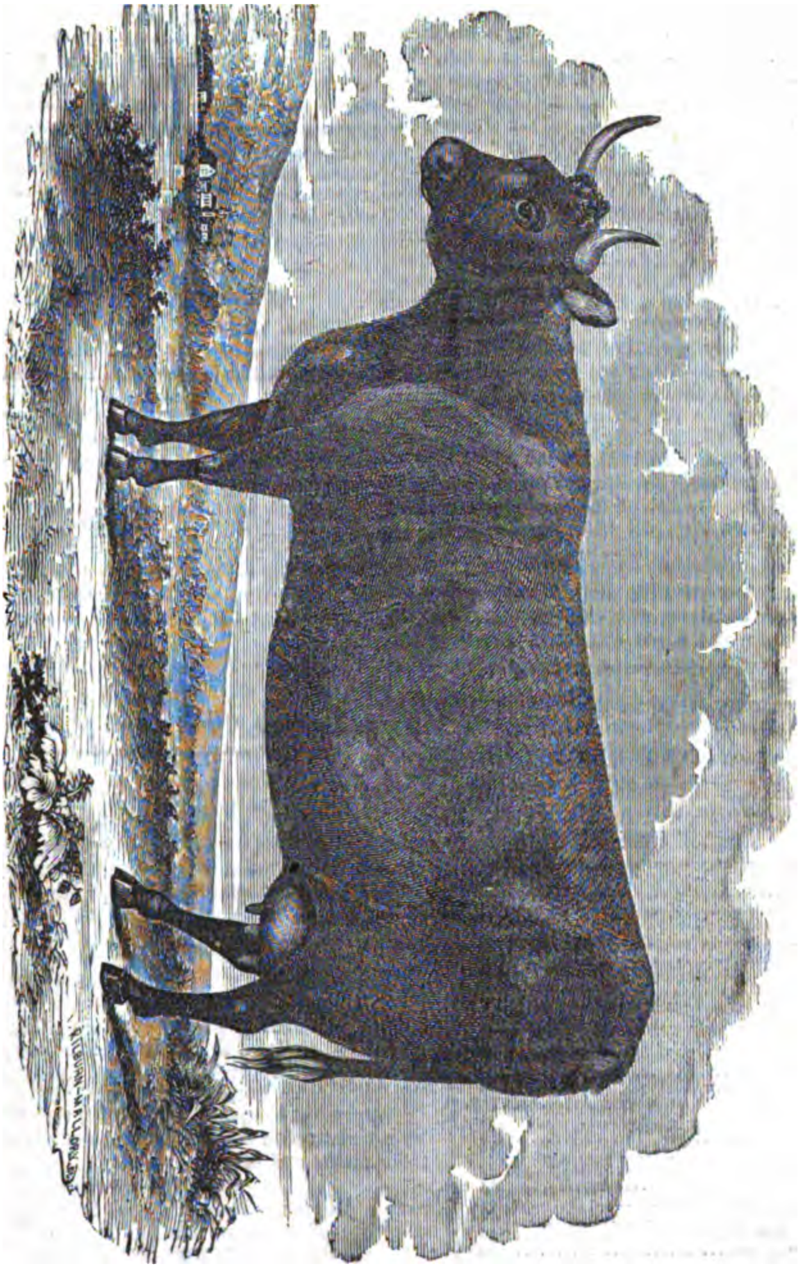
THE BLUE BIRDS—CURE FOR BLACK KNOT.

MESSRS. EDITORS:—The blue bird returned to us this year on the 23d of March, eleven days later than the date of their return last year. The robins were first seen on the 13th day of March, making their return some seventeen days later than last year. Now, as the season was quite as forward and mild as that of last spring, I wonder if the little travellers did not make a mistake in their almanac, or if, like man, they have not degenerated from their ancestors of patriarchal times, who knew "their appointed time." By the way, Mr. Editor, did you ever see or hear of a white "hair bird?" You probably know the little fellow, a species of sparrow, sometimes called chipping bird, who loves to come round the house and make himself at home. Well, not long since we saw one in a flock, perfectly white, its little feathery coat pure as snow.

Another fact I have been treasuring some time to send to you, though, if I mistake not, the remedy named has been proposed before, but in this it has stood the test of trial. A friend of ours was at work in his garden one day, about two years since, and about to cut down a plum tree which was half covered with these black knots, so common and so troublesome to the fruit-grower. He had some spirits of turpentine near, and he suddenly bethought himself to make an experiment with this tree before destroying it. He cut the knots with a sharp knife down to the wood, and made a thorough application of the turpentine. Months passed, the tree lived, did well, and the black knot was destroyed. Since then he has been very successful with this remedy, and so have others who have followed his example.

Yours truly, A. E. PORTER.

PROFITS OF ORCHARDS.—A distinguished agriculturist, who has 1000 apple trees, and intends to set out as many more, says that if apples will sell at 25 cents per bushel, they are his most profitable crop ; and if they will not sell, they are the cheapest food he can raise for all kinds of animals.



THE OAKES PRIZE COW.

THE OAKES PRIZE COW.

So much has been written and said about this celebrated animal, that it has been thought desirable to state what is known of her origin and history.

She was purchased by Mr. Caleb Oakes, of Danvers, in the year 1813, then five years old, having been originally bought by Mr. B. Goodridge, of Danvers, at the age of two years, from the drove of a Mr. Copp, drover, from Randolph, Vt. She was recommended to Mr. Copp as being one of a breed celebrated for its milking qualities. She was of a dark-red color, rather under size, and described by Mr. Goodridge as "high and broad behind, having a straight back, large belly, small neck and head, fine horns, bright eye, and in all respects symmetrical and handsome." While in possession of Mr. Goodridge she had her first calf, which, at the age of four weeks, made first-rate veal, weighing over twenty pounds the quarter. Mr. Oakes made from her the first year, and without over-feeding, no less than one hundred and eighty pounds of butter. In the next year (1814) he gave her ten or twelve bushels of meal, and made three hundred pounds of butter. In 1815 he gave her from thirty to thirty-five bushels of meal, and made over four hundred pounds of butter. In 1816 she calved on the 5th of April, and the calf, being very fine and fat, was killed on the 8th of May; after which, she had good pasturage all the season, and was allowed one bushel of meal a week, together with all her skimmed milk. In June of that year, Mr. Oakes weighed her milk, and found that she gave ten quarts at night, weighing twenty-six and a half pounds, and seven quarts in the morning, weighing eighteen pounds; in all, forty-four and a half pounds a day.

The quantity of butter made in the year 1816 was as follows :—

Before the calf was killed	17	pounds.
May 15	14½	"
" 22	16	"
" 28	17½	"
June 5	19	"
" 12	18½	"
" 19	17	"
" 26	18	"
July 3	18	"
" 10	17	"
" 17	16	"
" 24	16	"
" 31	16	"
August 7	15	"
" 14	15	"
" 21	16	"
" 28	15	"
September 4	15	"
" 11	16	"
" 18	12	"
" 25	15	"
October 2	16¾	"
" 15	15	"
" 21	16	"
" 29	16	"
November 7	16	"
" 18	18	"
" 23	10	"
" 30	13	"
December 10	14	"
" 20	10	"
Total	484¼	"

As late as the 28th of December, she gave eight quarts of milk per day. While in the possession of Mr. Oakes she had four calves, and suckled each of them over four weeks, besides furnishing to the family one quart of milk per day. The butter made from her was of a superior quality.

This cow received the prize of the State Society at the Brighton Show, in 1816. She was purchased of Mr. Oakes by Hon. Josiah Quincy, who afterwards sold her to Colonel Samuel Jaques, of Ten Hills Farm, Charlestown. The cut which is here presented, is pronounced by these gentlemen to be an accurate and admirable likeness of this remarkable animal. It is well known that she never produced offspring equal to herself for milking qualities. The effect upon her constitution, by surfeiting and over-feeding, for the purpose of increasing her milk, in all probability, materially affected the character of her progeny, none of which are known to have been raised till after the year 1816.—*Agriculture of Massachusetts, for* 1854.

For the New England Farmer.

NEW BUDDING KNIFE.

Messrs. Editors :—Having seen the decided advantage of using a thin-bladed knife for splitting the stock in grafting, I am desirous of informing my brother amateurs that they can find at Kingman & Hasam's, 128 Washington Street, Boston ,one of the best instruments (in my estimation,) which has ever been got up for cleft grafting.

The hint for making it was derived from Prof. I. P. Kirtland, who has had much experience in grafting cherries.

Its main value is for small stocks, which are rather cut than split by this process.

Dedham, April 16, 1855. Eben Wight.

Remarks.—We have looked at the knife mentioned, and should think it a decided improvement on any we have before seen.

Quick Work.—It was once the fashion to wear coats, the material for which had not long before been on the back of the sheep. For rapidity of work in this way, I know nothing that can compete with the achievement of Coxeter, of Greenham Mills, near Newbury. He had a couple of South Down sheep shorn at his factory, at five o'clock in the morning; the wool thus produced was put through the usual processes; and, by a quarter past six in the evening, it resulted in a complete damson-colored coat, which was worn at an evening party by Sir John Throckmorton. A wager for a thousand guineas was won by this feat, with three-quarters of an hour to spare. The sheep were roasted whole, and devoured at a splendid banquet. In one day they afforded comfort to both the inward and the outward man.—*Habits and Men.*

Butter.—Though butter may be considered as one of the most common of all ordinary things, yet the ancients were nearly, if not entirely, ignorant of its existence. The older translators of Hebrew seemed to think that they had met with it in Scripture, but most modern biblical critics agree that what was formerly interpreted butter, signified milk or cream, or, more properly, sour thick milk. The word referred to plainly alludes to a liquid, as it appears that the substance meant was used for washing the feet, and that it was imbibed, and had an intoxicating influence. It is well known that mares' milk, when sour, has a similar effect. Those acquainted with the authorized version of the Bible would infer, on reading the 30th chapter of Proverbs, that butter was prepared by shaking or beating; the original, however, signifies pressing or squeezing, evidently meaning milking, and not the making of butter. Herodotus, in his account of the Scythians, makes obscure mention of butter. This is the oldest reference known.

AGRICULTURE OF MASSACHUSETTS.

The volume of Agricultural Transactions of Massachusetts, for 1854, has just been issued, and will compare favorably with those of any preceding years, and with volumes of the same character from any other State. The character of the New York Transactions is different from this, inasmuch as they contain elaborate and careful surveys of some of the counties, including their early settlement, geography, topography, geological formations, and natural history, together with whatever there is in them of a curious or remarkable nature. We trust the day is not far distant when Massachusetts will find it for her interest to develop the agricultural resources of this Commonwealth, something after the example given us by our New York friends. She has done nobly, already, we confess, in the numerous works which have been produced from time to time by order of the Legislature, and among which are the Four Reports on Agriculture, by Mr. Colman, Reports on Geology, by Dr. Hitchcock, on the Ichthyology and Herpetology, by D. H. Storer, on Ornithology, by W. B. O. Peabody, on the Herbaceous Flowering Plants of Mass., by C. Dewey, on the Quadrupeds, by E. Emmons, on Insects Injurious to Vegetation, by T. W. Harris, on the Invertebrata, comprising the Mollusca, Crustacea, Arnelida, and Radiata, by A. A. Gould, also something upon Zoology and Botany, and the Report on the Trees and Shrubs growing naturally in the Forests of Massachusetts, by G. B. Emerson.

This volume, as well as that of last year on the general agriculture of the State, has been collected and compiled with great care and ability by Charles L. Flint, Esq., the Secretary of the Board, and is not only a credit to the State, to the Board, and the Secretary, but will prove of eminent service to the farmers themselves. We hope at some future time to speak more in detail, and present some of the contents of the volume. The Secretaries of Farmers' Clubs in any towns in this State, who wish to procure copies of this work for distribution to members, should address the Secretary of the Board of Agriculture at the State House. These volumes, as well as the reports of the Secretary, are sent to those agricultural papers which are sent by way of exchange to the office of the Board of Agriculture.

Lumbering.—A correspondent at Holderness informs us that Messrs. Fisk and Norcross are coming down the Merrimac with a drive of fifteen million feet of lumber. They are now passing Holderness and Plymouth, and so far have had an excellent run. For a motive power they have sixty oxen and one hundred and seventy-five men, besides the river, which is now in good navigable order—for logs.

It is a very exciting and interesting sight to see the great logs rushing down the river, now piling up in unshapely masses against the rocks in the rapids, and now drifting in immense rafts into the eddies. The men and oxen have as much to do as they can well attend to. The lumbermen of Messrs. Fisk and Norcross are all temperate men and fine athletic fellows. The far-famed New England dish of baked beans constitutes one of their chief articles of food while descending the river, and it is cooked and served up in the lumbermen's camp in a style which would do credit to the most accomplished *cuisinier*. Their process of cooking is this: In the evening they build a huge fire upon the ground, and as soon as there is a plentiful supply of coals, they fill a huge earthen pot with half a bushel or a bushel of beans, and a few pounds of pork, and cover it over with a great pile of embers and ashes; and when it is opened at breakfast time the next morning, it is found to contain a hot and savory mess, which, with a good supply of strong coffee and other accessories, furnishes a meal fit for a President.—*Boston Journal.*

The Cheapest Food.—One hundred pounds of good wheat flour contain 90 pounds of pure nutritive matter and 10 pounds of water. One hundred pounds of potatoes contain from 20 to 25 pounds of nutritive matter depending upon the quality of the potatoes, say 22½ pounds, upon an average, consisting almost entirely of starch, and 77½ pounds of water and inert matter. It requires, therefore, exactly four hundred pounds of potatoes to supply the same amount of nutriment that one hundred pounds of wheat flour supply. The best potatoes weigh about 64 lbs. to the bushel, and a bushel contains 15 1-5 lbs. of nutriment. At two dollars per bushel, or fifty cents a peck, the retail price lately in our markets, the nutritive portion of potatoes costs a fraction over *thirteen cents a pound*, which is equivalent to twenty-three dollars and fifty cents for a barrel of good flour. While flour has doubled in price only, potatoes have increased at four-fold rate.—*Philadelphia Ledger.*

☞ We have received from Mr. Jedediah Kilborn, South Strafford, Vt., a fine specimen of Maple Sugar, of his own manufacture. We are thankful to our friends for remembering us so liberally, and can assure them that their favors are always appreciated.

☞ After protracted droughts, copious rains have at last fallen through Georgia, South Carolina and Alabama.

For the New England Farmer.

USEFUL RECEIPTS.

Mr. Brown:—I have made up the following little items from my memorandums, thinking they may possibly be of use to somebody, and send them to you for publication, if you think best.

Rearing Calves.—I have sometimes raised calves by allowing them to suckle cows for the first three or four months after birth, sometimes by giving them milk to drink for about the same period, and, in one or two instances, for want of milk, have brought them up on gruel. Latterly I have practised the following mode, and think it, on the whole, the best of any I have tried:

Take the calf from its dam when a few days or a week old, according to the condition of the cow's bag, and learn it to drink new milk, warm from the cow, feeding it thus, twice a day till four or six weeks old. Then begin quite gradually to lessen the quantity of new milk, adding, in place of that taken away, an equal measure of skimmed milk—the milk, previous to skimming, having stood about twelve hours, and, before it is given to the calf, having been warmed to the temperature of the new milk. So graduate the reduction of the new and the addition of the skimmed milk, that the latter shall constitute the entire mess for the calf when it arrives at the age of eight or nine weeks. When the calf is five or six weeks old, give it a few dry oats, say a moderate handful daily, and increase a little at a time, till at and after ten weeks of age the calf shall receive about a pint per day; also, at the age of five weeks, begin to feed a little nice fine hay. When the calf is ten weeks old, the milk it receives may be that which has stood longer than twelve hours before being skimmed; also at and after this age, the quantity of milk may be gradually lessened, and water substituted for the milk taken away, so that when the calf is twelve or fourteen weeks old, the milk shall be wholly withdrawn, and the calf shall receive oats, hay and water, or shall be turned off to good pasturage.

Thus managed, the calf will never know when it was weaned from milk—will have no season of repining and falling away in flesh, or remaining stationary in growth—will have no troublesome habit, after the time for weaning, of sucking cows that may chance to be in the pasture or yard with it, and will be quite as large, plump and symmetrical when a yearling, as though it had been reared by the more expensive mode of suckling a cow. During the winter preceding the period when the calf becomes a yearling, it should be fed on the best of fine hay, with one quart of dry oats, or six to eight quarts of mashed roots, daily. It is not a good practice to feed meal to young calves, either before or after weaning, the meal being too heating, injuring digestion and bringing on purging, and worse still, if fed freely, causing the calf to grow out of shape, picked and scrawny. It is also difficult to rear a nice well-shaped calf on gruel, because of the meal of which the gruel is in part made, and because the quality for forming well-developed bone and a well-shaped body, which milk eminently possesses, is too much lacking in the gruel.

Cure for Purging.—Take of pulverized common white chalk, and of ginger, each a tablespoonful, put the same into the calf's milk, and stir well while the calf is drinking it—the tendency of the chalk being to settle on the bottom of the pail or trough. I have used this remedy for a dozen years or more, and have recommended it to many persons during the time. However, if a calf is carefully watched from day to day, and fed on proper food, suitably warmed, there will seldom be any occasion to treat him for any malady.

To Cure the Garget.—A writer in the *Ohio Farmer* says that a cow affected by garget may be cured by rubbing the bag thoroughly, in all parts, with raw linseed oil; that one application is usually sufficient, if done on the first appearance of the disorder, and that two or three rubbings will, in any case, effect a cure. He also states that he has seen cows from whose bags, by reason of garget, no milk could be drawn, so far cured in forty-eight hours that they would give nearly as much milk as previous to the attack, and show no further symptoms of the disease.

To remove Vermin from Cattle.—Dissolve camphor gum in new rum, making the liquid pretty strong of camphor, and apply it on various parts of the body of the animal. It is a harmless application, so far as the animal is concerned, leaving the coat free and clear, but destroys the lice. In about two or three weeks after the first application, rub on the liquid again, in order to kill the young vermin that may have hatched out after the first rubbing. I know of no safe application which will prevent the eggs or nits from hatching.

To prevent Field Mice from Girdling Trees.—In passing over the farm of Mr. Solyman Cune, of this town, a few days ago, I saw the following plan in use to secure his fruit trees from the depredations of field mice, they having formerly caused him much vexation and loss by eating off the bark of his trees. Small blocks of slitwork-stuff, sawed say four to six inches long, are provided, and bored partly through, lengthwise, with a 1¼ inch auger; ratsbane and Indian meal are mixed together, in the proportion of one-fourth of a pound of ratsbane to two quarts of meal; into the hole in each block is put a teaspoonful of this mixture, and a block is placed near each tree, the bored end lying a little the lowest, to keep out rain; the blocks are covered with boards, some two feet or so long, and of suitable width; and the mice, on approaching a tree, run under the board for shelter, eat of the ratsbane and meal, and die, and the tree escapes uninjured. I examined many of Mr. Cune's trees, to see how the plan worked, and in no case discovered any injury to the bark by mice.

F. Holbrook.

Brattleboro', *April* 25, 1855.

SCATTER YE SEEDS.

Scatter ye seeds, and flowers will spring;
  Strew them at broadcast o'er hill and glen;
Sow in your garden, and time will bring
  Bright flowers, with seeds to scatter again.

Scatter ye seeds—nor think them lost,
  Though they fall amid leaves and are buried in earth;
Spring will awake them, though heedlessly tossed,
  And to beautiful flowers those seeds will give birth.

Scatter ye seeds; tire not, but toil;
  'Tis the work of life, 'tis the labor of man;
In the head, in the heart, and on earth's own soil,
  Sow, gather and sow, through life's own span.

Scatter ye seeds in the field of mind—
  Seeds of flowers, with seeds of grain;
In the spring and summer, sweet garlands ye'll find,
  And in autumn ye'll reap rich fruits for your pain.

Scatter ye seeds in the garden of heart,
  Seeds of affection, of truth, and of love;
Cultivate carefully each hidden part,
  And thy flowers will be seen by angels above.

Scatter ye seeds—the seeds of Hope;
  Plant in your bosom the Tree of Life—
Then the flowers here budding in Heaven shall ope,
  And in Heaven will ripen the fruits of strife.

Then scatter ye seeds each passing year;
  Sow amid winds and storms of rain—
Hope give thee courage, Faith cast out fear,
  God will requite thee with infinite gain.

INDIAN CORN—ITS CULTURE.

In those sections of our country adapted to its production, (and they cover almost its whole area,) Indian corn is one of the most remunerating crops which can be grown, and each year adds to its importance in the eyes of farmers. The large use which may be made of this produce in feeding and fattening animals, and also for human food, renders it an article of much value for consumption on the farm, and the demands of both foreign and home markets are such that any surplus may always be disposed of at remunerating prices. As a uniform rule, the product per acres is more in proportion with the care used in the preparation of the soil, the planting, and culture, than most other grains—the crop being less liable to blights or diseases, and the attacks of insects.

No plant repays more richly an abundant supply of manure. On a suitable soil—with climate to match,—its growth is large, rapid, and healthy, and it is a gross feeder, seldom injuriously affected by the quality or quantity of the fertilizers applied. Though corn, like other plants, has its favorite aliment—yet it possesses a greater power than most of assimilating the different manures to its use. Hence in a series of crops to which it is desirable to apply large quantities of the coarsest manures, it is the best which can be chosen to receive them. To restore worn out lands to a high state of fertility by this means, and yet to produce constant returns, give a large application of fertilizing material, plant to corn, and follow with the lesser grains and clover,—a course often taken by our most enterprising and intelligent farmers.

It is impossible to mark out a plan of procedure adapted to the wants and circumstances of all who will plant corn,—but from the course which one pursues successfully many others can gather hints which they can adapt to their own use with profit. Sward ground or clover leys are almost universally employed for raising corn;—let us speak of their preparation for that purpose, and the after-management of the crop.

Apply, during the present month, from thirty to fifty two-horse loads of barn-yard manure to the sward land intended for corn, and plow it under as soon as may be, as neatly and perfectly as possible, and at least eight or nine inches deep. If the manure is rather coarse, it is more important that the plowing be well done, so as to cover it well, and thus ensure its speedy decay. Then, with a good harrow or cultivator, or better—a gang plow—reduce the surface to as fine tilth as it can be without disturbing the sod. Mark out the rows about three and one-half feet apart, if it is to be planted by hand, which, unless one has a machine which will give rows both ways, is the best for small fields.

Plant according to the weather—the first half of May *used* to be the time—and when the corn is up so that it can be seen readily, pass through with a one-horse cultivator, and then dress with a mixture of ashes, plaster and salt—a handful to each hill. In a few days cultivate again and dress carefully with the hoe, leaving four or five plants to each hill; and keep the soil, by frequent harrowing and hoeing, light and clear as long as the size of the corn will admit of the passage of the horse and cultivator between the rows. And, throughout the season, allow no weeds to steal the fertility of the land and rob the present and future crops of the nutriment properly their due. It is astonishing how much effect can be produced by mere culture, even with a small application of manure. A fine deep, oft-stirred soil, seems to have resources in itself, or to gather them from the air and rain, which a hard, half-tilled soil knows nothing about.

All experience and experiment go to show that a rich, deep soil (naturally or artificially so) and thorough culture, are, more than any thing else, the great requisites for raising a great crop of Indian corn. The variety must be suited to the locality—our short summers needing a kind that grows rapidly and matures early, while South and West the larger and coarser kinds are more productive. (And, we may add, that this article will scarcely apply to other than Northern localities.) A well-drained loam is, perhaps, the most congenial soil for the corn crop. It will not flourish upon sour, wet land, nor will the manures it requires there produce the effect desired. If, also, the soil be deep and frequently worked, drought and its opposite have much less effect on the corn crop. In short, thorough farming—every thing well and seasonably performed—is appreciated and repaid as well by this, as by any product to which the farmer can turn his attention.—*Rural New-Yorker.*

For the New England Farmer.

STONE FOR BUILDING.

Friend Brown:—About a year ago, I saw in the *Farmer* some remarks from you upon *stone buildings*, requesting some one to write upon the subject, as to the expense between stone and wood. I have been hoping to see something written upon the subject, from some one better qualified than myself. I constructed a dwelling-house, about eighteen years since, of this ever-enduring material, and have found it, as you then remarked, "much less expensive to keep in repair, and warmer in winter and cooler in summer," &c. As to the first cost, I think it not much more expensive than wood; and if I were to build again, I should build of stone, though in some manner different from what I built at first. I should use cement instead of lime, and should not guage the stone to a width and lay in courses as brick, as this is more expensive. But I should split out stone underpinning, long or short, as they might happen to be, of sufficient thickness to square the ends where needed, as against windows, doors and corners, and chink up so as to make strong work. In this way I built the L part of my house, and it is much less expensive. I think where stone is near at hand and of the right kind, the walls of a house can be erected in this way as cheap as wood. And it is strange, where stones are plenty, people do not build more with this enduring substance, especially when lumber is so high.

Many have an idea that a stone house is damp and unhealthy, but it is not so if constructed rightly. The wood-work should be set off from the stone, giving room for the air. The house I built is thirty-nine by twenty-nine feet; the average thickness of stone on the lower story is one foot—upper story eight inches. The expense of the walls at the time it was built, about $400. It has cost but a trifle to keep it in repair compared to that of wood.

As much is said and done in these days about poultry, I add a word; if not for the benefit of owners of fowls, it may afford some relief to the poor *biddie* while in distress. I lost a number of fowls, year after year, by a disease in the crop. There seemed to be a stoppage, and most of the food they ate would remain there, till it swelled so much it became a burden; they would linger along a week or two, then die. At last I tried an experiment upon a hen that was about to die. I laid the fowl on its back, and while my son held the legs and head, with a sharp knife I cut a slit, an inch or more in length, in the skin, then cut the skin of the crop cross ways, in form of an X, and with a crooked wire hooked out the contents. The crop was *stuffed full* of grass and grain, and scented very much. I washed the inside of the crop clean with cold water, then with a needle and strong thread sewed it up, and after that the outward skin. I then set the hen down upon the floor, when she immediately went off *singing*, expressing all the thankfulness the poor creature was capable of. In a few days the wound was healed, and in a short time she was laying eggs again.

The *Farmer* comes to us, bringing a multiplicity of good things. I am glad to see it take such a stand against intemperance and slavery. Have occasionally seen a notice of *revivals of religion*, and such news is cheering to every Christian reader. John Fiske.

Holliston, Feb., 1855.

For the New England Farmer.

PRUNING.

Mr. Editor:—I have lately noticed some of my neighbors, with jackknife, handsaw and hatchet in hand, attacking their fruit trees as though they were enemies whom it was their purpose to wound and mutilate and disable by all means in their power. After the battle has been fought I have seen the ground covered with branches, and in some cases, with heads and trunks lying scattered in all directions around the scathed and bleeding trees, that remain like wounded and maimed soldiers, after a hard fought conflict. And the trophies of the victory thus obtained are carried off by whole cart-loads, in the shape of sound, healthy sprouts and branches, covered with leaf and fruit-bud, and consigned to the wood-pile.

It seems to me, sir, that these good neighbors of mine are trying an experiment to see how much injury they can inflict upon their trees, without destroying their lives. When the Inquisitors stretch a heretic upon the rack, they place a surgeon by his side, with his fingers upon the pulse, to decide when the torture has been carried to the limits of human endurance. But not so with our tree-trimmers. They seem to think that there is no limit to the endurance of vegetable life. This subject has often been referred to in your paper, and the evil consequences of such a course have been frequently pointed out. But the fact that this practice still continues, shows that enough has not yet been said. "Line upon line, and precept upon precept," seems to be the only way in which truth can be fixed in the public mind. If those who pursue this course will watch their trees carefully, and observe the effects of their treatment for two or three years, I think they will be satisfied, that it is not only useless, but highly injurious. When the trees are trimmed in March, April and May, as soon as the warm weather comes on, and the sap presses into and distends the sap vessels, it bursts out of the recently wounded vessels, and runs down and blackens and poisons the bark, and causes it to crack and separate from the underlying alburnum, and thus effectually prevents the healing of the wound. Gangrene and death of a portion of the wood necessarily follow. Where several such wounds are made in a tree, its whole constitution will soon become impaired. It ceases to grow, and in a few years droops and dies.

Trees that are trimmed the least, will generally be found to be the most vigorous, and to develop the best formed and most beautiful heads. Now and then, a limb that is putting forth in an inconvenient direction, or in a direction which will injure the symmetry of the head, should be taken away. A limb that is shooting out more vigorously than the rest, may be shortened, and when two limbs are chafing each other, one may be removed. Shoots that grow from the trunk, will generally die or cease to grow, when nature has no further service for them to perform. The idea of cutting out the whole central portion of an apple tree, to let in the sun, is wholly erroneous. The tree is thus deprived of a large portion of its lungs, as well as of many of its best bearing branches. In our climate the fruit, so far from requiring the direct rays of the scorching sun in midsummer, requires to be protected from its rays by the foliage which nature has provided. The directions given in English books for the cultivation of fruit, are adapted to the moist and cloudy atmosphere of England. The attempt to apply them to the cultivation of fruit in our climate, has led to the adoption of much erroneous practice.

The best time for general pruning is a mooted question among intelligent men. But my own belief is that the proper time, in this climate at least, is in June and July, when the leaves have attained their full size, and are in full health and vigor, and are elaborating an abundance of sap. In this state, a fresh wound will commence healing at once. New bark is rapidly formed to cover the wound. It is the descending sap from which the new bark as well as all the other tissues of the tree is formed. When this sap, properly elaborated in the leaves, is not furnished to the formative vessels, no new growth of any kind is effected. Hence it is only when the leaves are in a condition to perform their proper office, that the new growth necessary to effect the healing of a wound can be accomplished. J. R.

Concord.

For the New England Farmer.

HARD AND STONY LAND.

Mr. Brown:—There was an article in your last week's paper, over the signature of "A Tiller of Hard and Stony Soil," and, as I happen to be located on such soil, I thought I would say a few words to encourage my brother to labor with patience and perseverance to overcome those natural defects. If there is a more hard and stony place in Massachusetts than Cape Ann, I hope never to see it. The writer complains that the improved agricultural implements are not adapted to such soils, and of plows in particular. He says the plows forty or fifty years ago would do the work better than the present ones. I cannot tell how good the plows were in his section of the country, but I can well remember the one that my father made use of fifty-five years ago. It was from nine to ten feet long; the mould board was covered with old hoes, iron hoops, and a few old ox-shoes, to fill up the vacant places. It required four yoke of oxen to draw it, two men to drive, and one to assist in managing it; and when it was thrown out by a stone, it required at least four feet to get it in again. Now my nephew can take one yoke of oxen, and one of Ruggles, Nourse & Mason's No. 2 Eagle plows, and perform far better work alone on the same land.

There is great improvement in other agricultural implements, hay and manure forks in particular, that we can make use of, as well as those who are located on a better soil. If we are located on a hard and stony soil, we can improve it by clearing off the small stones, and depositing them in the low and springy places, in the shape of blind drains. I have made use of all my small stones in this way for twenty years past, and find it to be my best land that used to be principally covered with bulrushes.

It is true that I cannot make use of a mowing-machine, nor have I attempted, as yet, to try a horse-rake; but hope that, if I should live, I shall get the stone cleared so that I can use one.

I am fully convinced, from my own experience, that, by diligence, economy, patience and perseverance, we may live comfortably on the roughness of Massachusetts soil. And I feel glad that I am a farmer, although I am located on the spot where my ancestors have been from the first settlement of the country. I give my name in full, so that, if my brother thinks I have made any exaggeration, he can make me a visit, and I will produce living witnesses of all I have said.

Thomas Haskell.

Gloucester, April 14, 1855.

FISH AS FOOD.

There is much nourishment in fish, little less than in butcher's meat, weight for weight; and in effect it may be more nourishing, considering how, from its softer fibre, fish is more easily digested. Moreover, there is, I find, in fish—a substance which does not exist in the flesh of land animals, viz., iodine—a substance which may have a beneficial effect on the health, and tend to prevent the production of scrofulous and tubercular disease, the latter in the form of pulmonary consumption, one of the most cruel and fatal with which civilized society, and the highly educated and refined, are afflicted. Comparative trials prove that, in the majority of fish, the proportion of solid matter—that is, the matter which remains after perfect desiccation, or the expulsion of the aqueous part—is little inferior to that of the several kinds of butcher's meat, game or poultry. And, if we give our attention to classes of people—classed as to quality of food they principally subsist on—we find that the ichthyophagous class are especially strong, healthy and prolific. In no class than that of fishers do we see larger families, handsomer women, or more robust and active men, or a greater exemption from the maladies just alluded to.—*Dr. Davy's Angler and his Friend.*

A Stare.—"Father, I hate that Mr. Smith," said a beauty, the other day, to her honored parent.

"Why so, my daughter?"

"Because he always stares at me so, when he meets me in the street."

"But, my child, how do you know that Mr. Smith stares at you?"

"Why, father, because I have repeatedly seen him do it."

"Well, Sarah, don't you look at the impudent man again when you meet him, and then he may stare his eyes out without annoying you in the least. Remember that it always takes two pairs of eyes to make a stare."

HARDY BORDER PLANTS.

The Lily Family.—Portions of this tribe have a time-honored claim to the flower garden, long anterior to the introduction of the more showy China and Japan species and varieties, all of which give promise of becoming ultimately classed as hardy plants. According to Breck, they are all quite hardy if protected during the winter with a coating of leaves or long dung; if so, no garden should be without them. When planted, the bulbs of the lily should not be removed often, as it injures the flowering for the ensuing year, and if kept out of ground any length of time it will not recover its strength for two or three years.

They are readily propagated by the scales of the bulb, each of which is capable of forming a new bulb, and should be stuck in sand in a shady border, or in pots, in pits or frames. This method is usually resorted to, to propagate scarce or new kinds; the ordinary way is to collect the small bulbs that spring from around the old ones yearly, and plant them in a well prepared border, till they become strong enough to flower. They also seed freely, and some kinds produce a quantity of small bulbs upon the stems, which can be used for propagation.

Most garden soils will grow them, but to see them in perfection, make a soil fifteen or eighteen inches deep, of loam, peat, muck, decayed leaves, and rotton manure, each equal parts, well mixed together. The best time to transplant is as soon as the leaves die away in August. The following kinds are all first rate, besides which every body should grow the splendid native species—*Lilium supurbum*, orange color in cluster—*L. canadense*, (Nodding Meadow Lily,) yellow or deep orange scarlet spotted with brown, and *L. Philadelphicum*, (common Red Lily,) vermillion, richly spotted with black.

L. longiflorum, the long flowered white lily.—Flowers pure white, and fragrant, native of Japan. Flowers in July. Good for pot culture.

L. candidum, the old white Lily—Worthy of a place in every garden, from its imposing appearance when in flower. Levant. July.

L. Martagon, Turk's cap Lily—So named from the petals of the flower reflexing very much, giving it the resemblance of a cap. There are many varieties of this species, with different colored flowers, as white, purple, spotted and variegated. Germany. Flowers in July.

L. tigrinum, Tiger spotted Lily—A very common showy garden kind, with orange ground, and black spotted flowers. China. Flowers in August.

L. chalcedonicum, scarlet Martagon Lily—Flowers scarlet, reflexed, a good common kind; native of the Levant. Flowers in July.

L. japonicum, the Japan Lily—This and its varieties are the finest of the genus, and have hitherto been treated as green-house plants. The variety *speciosum* has a pink and white frosted ground, finely spotted with deep crimson. The *L. lancifolium album*, is pure white, with reflexed petals, and a peculiar crested projection of bright crimson.

L. lancifolium punctatum or roseum—Flowers large, white, petals studded with pale rose or blush projections, and beautifully spotted with rose color.—*Edgar Saunders.*

For the New England Farmer.

A GOOD HOG.

Messrs. Editors:—I am not in the habit of writing for the public, therefore you must excuse this intrusion. In looking over your paper of last week, I find a communication of S. & R. Farnsworth, of New Hampshire, in which they give the particulars of a fine hog, excepting the cost of fattening, or, in other words, the profit and loss. It is one thing to make a good hog and another to get pay for so doing.

Feb. 1, 1853, I took a shoat which weighed 230 lbs, and fed him 90 days, in which time he consumed 19½ bushels of grain, being a mixture of corn, oats, rye and wheat, worth 75 cents per bushel. He dressed 399 lbs. Now for the profit.

April 30, Cr. by 399 lbs. pork, at 9 cents per lb.......		$35,91
Feb. 1, Dr. to 230 lbs. shoat, at 6c per lb......	$13,80	
" " 19½ bushels grain, 75 per bushel.	14,62	
		$28,42
Leaving a net gain of............................		$7,49

Allowing one-fourth shrinkage in dressing, (and he was a lean hog,) and he gained nearly three and one-third pounds a day for ninety days.

With respect, J. E. Putnam.

Sutton, April 2, 1855.

IT CAN'T BE HELPED.

"Can't be helped," is one of the thousand convenient phrases with which men cheat and deceive themselves. It is one on which the helpless and the idle take refuge as the last and only comfort—it can't be helped. Your energetic man is for helping everything. If he sees an evil, and clearly discerns its cause, he is for taking steps forthwith to remove it. He busies himself with ways and means, devises practical plans and methods, and will not let the world rest until he has done somethtng in a remedial way. The indolent man spares himself all this trouble. He will not budge. He sits with his arms folded, and is ready with his unvarying observation, "It can't be helped!" as much as to say—"If it is it ought to be, and we need not bestir ourselves to alter it." Wash your face, you dirty little social boy; you are vile, and repulsive, and vicious, by reason of your neglect of cleanliness. "It can't be helped." Clear away your refuse, sweep your streets, cleanse your drains and gutters, purify your atmosphere, you indolent corporations, for the cholera is coming. "It can't be helped!" Educate your children, train them up in virtuous habits, teach them to be industrious, obedient, frugal, and thoughtful, you thougtless communities, for they are now growing up vicious, ignorant and careless, a source of future peril to the nation. "It can't be helped." But it can be helped. Every evil can be abated, every nuisance got rid of, every abomination swept away; though this will never be done by the "can't-be-helped" people. Man is not helpless, but can both help himself and help others. He can act individually and unitedly against wrong and evil. He has the power to abate and eventually uproot them. But, alas! the greatest obstacle of all in the way of such beneficial action, is the feeling and disposition out of which arises the miserable, puling, and idle ejaculation of "It can't be helped."

For the New England Farmer.

GRAVEL WALLS.

Mr. Editor:—The point at which the remarks I heretofore offered you stopped, was, a suitable adhesive mixture for gravel buildings.

Mortar, as a building material, is a cement made of quick-lime and sand, for the purpose of holding stone, brick and other matter together.

Limestone is sufficiently firm and compact for building, and is doubtless safe and durable. The process, as is well known, in producing quick-lime, is to expose this stone to a powerful heat. This process destroys its peculiar qualities as stone by driving off the carbonic acid, yet is in a state which with suitable additions or absorptions of carbonic acid, it will become stone again. An English writer, Jennings, (not a very modern one, it is true,) says, "That it is well known that quick-lime alone and water will not make good mortar. Various substances have been used for the purpose, as finely sifted coal ashes, and gravelly sand from the neighborhood of spring water." He says further, "that equal parts of quick-lime and *the article* which is to supply the carbonic acid, whether sand, fine gravel, coal ashes, or other matter, will be a fair proportion of each ingredient, but it may happen from peculiar circumstances that this general rule ought to be departed from." It must not be overlooked too that *water* is a necessary ingredient in the composition of mortar, and from our theory, he says, "it follows that that which contains the greatest quantity of carbonic acid unmixed with substances not congenial to the composition of mortar, such as clay and vegetable, matter must be the best. Besides the carbonic acid and lime, which are the most important parts in the formation of mortar, there is reason for concluding that the water itself is *more than a medium* for the formation of the carbonate of lime; but what its precise operation is, we are not prepared to say."

A writer, (Cregg,) in the tenth number of the fourth volume of *The Plough, the Loom and the Anvil*, on the subject of slaking lime and preparing mortar, says, "To bring caustic or quick-lime into a fit state to be mixed with other ingredients to form mortar, it must be reduced to a hydrate, when it is called slaked lime, and the process of reducing it is called slaking. It is pretty generally admitted that the induration of mortars depends upon their absorption of carbonic acid *from the atmosphere;* and it seems to be essential to this reunion of carbonic acid with the lime, that the latter should have previously combined with its equivalent, or about one-third of its weight of water. Stuccoes made with hastily prepared lime remain soft and powdery for a long period; but those prepared with well-slaked and tempered lime soon absorb carbonic acid, and become hard often to a considerable depth from the surface. The presence of *water* being necessary, is further confirmed by the fact, that if dry quick-lime be placed in a jar of carbonic acid, no absorption whatever takes place.

"Quick-lime slaked by the addition of water, is the mode usually used in practice. * * * In this mode of slaking, care must be taken to throw on the necessary quantity *at once;* none must be added during the effervescence, or the lime will be *numbed*, fall in powder imperfectly, and continue gritty. Equal care must be taken not to *drown* the lime with too much water. *Thus drowned it loses the greater part of its binding qualities*, and this is especially the case with rich limes.

"The substances mixed with lime to form mortar are sand, ashes and burnt clay. To enable lime to harden by the absorption of carbonic acid, it is necessary to divide it as minutely as possible, or so as to expose as much surface as possible to the action of the air. The addition of any of the above substances effects their division, *and their action is simply mechanical.*" The same writer says, "that if a greater proportion of sand is used than 3½ of sand to 1 of lime, (chalk lime is here spoken of) the mortar is not plastic enough for use, and causes it to be too friable, for excess of sand prevents mortar from setting into a compact adhesive mass. But different limes require different proportions."

The theories of these authors differ seriously in reference to the process by which quick-lime becomes stone again, and the settlement of this question is very essential in reference especially to concrete or gravel buildings.

O. S. Fowler, who first built on this mode in this section of the country, and who published a book on this subject, seems to have proceeded without much attention to the proportion or principles of mortar-making; and, so far as I am informed, those generally who have built in this manner have followed too closely his directions. On the 24th page of his book, after a description of the materials for his walls, is the following: "These materials now require to be mixed with lime, and any easy mode of commingling these stones, gravel and sand with the lime, will serve the purpose. I have never tried mixing them in a *dry state*, but am certain this will answer a good purpose, but it will probably take some more time; yet I think it better to wet the lime first, because it incorporates itself with these stones better wet than dry; at least, I think the lime can be wet more easily by itself, than after mixing with the stones." On the 28th page he says, "I deposited my lime" and "I then poured in my water, not merely enough to wet the lime, but so that the whole mass would be *as thin as milk*, and stirred it up completely, so as to amalgamate the water and the lime together." He then put into this *lime-water* sixteen to eighteen barrows of sand to eight barrows of lime. "If it was too thick to be worked easily, more water was put in, and as it was worked water was still added, until the *mass was so thin* that it would follow the men about as fast as they worked backward and forward." "I speak of this thinness," he says, "because lime mixes so much better when a *large amount* of water is used than when it is rather dry." He further says, "that he mixed about one hundred barrows of stone and sand, to eight barrows of lime; and the proportionate value of the lime is to good stone-lime as 2½ to 8, making from thirty to forty parts of gravel and stone to one of stone-lime." But this he admits is too little lime, and recommends one part stone-lime to twenty, twenty-five or thirty parts sand and stone; and finally "recommends to those who are timid and cautious, one part of good stone-lime to twenty of sand and gravel."

This mass of lime and water, sand, gravel and stones, was mixed with the shovel and still watered on its passage to the wall, with such an accumulation of carbonic acid as it could meet, and immediately deposited on the wall and strange to tell, that it remains hitherto, not so much an *adhesive* mass (if science be true) as a well-packed collection of stones, sand, gravel and lime, (with the irregular broken slate-stone predominating, which is a very favorable feature) with but little true mortar.

If your patience, Mr. Editor is parallel to my disposition, I shall inflict upon your columns still another article at least on this subject, and if any of your readers intend soon to build after this method, and are desirous for the whole story, it may be said to them, get your foundation ready as soon as you will, but do not commence the work above the underpinnings earlier in the season than the first of June. W. H N.

Waltham, May, 1855.

WEIGHING THE EARTH.

"What, weighing the huge earth as you would a pound of soap or a lump of lead?" And why not? If modern science cannot furnish the fulcrum that Archimedes wished for that he might move the earth, it can at least find a balance in which to weigh it. This curious operation was performed several times, in the last century, but recently with more accuracy by Mr. Bailly, late President of the Astronomical Society of England. It was done in London and in a corner, but was not done in an hour or a day. It was a long labor of nearly four years duration. But *how* was it done?

Well, that would require many words to explain, but briefly we may say that Mr. Bailly did *not* clap the earth into a scale, and counterbalance it with an indefinite number of pound weights, nor did he take it to pieces and weigh it in fragments. He did it by the aid of Newton's great discovery—the power of attraction. He hung a slender rod, with a light ball upon each end, to the ceiling, by means of a silk or wire thread fastened to its middle. He then placed a massive leaden ball near each end of the rod, in such a wise that each sphere attracted the ball next to it in opposite directions, both thus tending to twist the thread the same way. Carefully observing the effect of the spheres in twisting the thread and causing the rod to vibrate, he then compared the results with the effect produced by the earth's attraction upon the thread, and having accurately ascertained the weight of the leaden spheres, thence computed the weight of the earth.

But you may be sure all this was not done without combating with many disturbing influences. A breath of air, a ray of light, the disturbance caused by a man's breathing, the emanations of animal heat from the body—any of these sufficed to put the instrument out of tune, and render the results of the experiments wholly fallacious. Consequently, Mr. Bailly was obliged to put a casing about the apparatus, and then, that his own presence might not disturb it, stood in a far corner and watched its movements with telescopes, through small windows in the casing.

And now for the grand result—what *does* the earth weigh? Well, Mr. Bailly, after allowing for a small probable error, says the density of the earth is five and a half times greater than that of water, being about half "as heavy as lead!" If you want the weight set forth in tons avoirdupois, you have the following pretty row of figures—1,256,195,670,000,000,000,000,000 tons weight; or, in words—one quadrillion, two hundred and fifty-six thousand, one hundred and ninety-five trillions, six hundred and seventy thousand billion tons avoirdupois!

And now, good reader, are you any wiser than you were before? We trow not, for the figures are beyond the power of human conception. They must stand in all their nakedness—an arithmetical marvel. In the words of *Chambers' Journal*, from which we have condensed these facts, "after weighing the earth, we cannot *realize* the enormity of its weight; and yet the earth itself is but an atom in the universe!"—*Portland Transcript.*

For the New England Farmer.

HOW TO MANAGE STUBBLE LAND.

MR. EDITOR:—I have six acres of stubble land which was plowed last fall; soil gravelly loam; three acres of which, I design for corn, and the other three for potatoes. Now I wish to obtain information through your valuable paper, as to the best modes of cultivating these crops. One of my brother farmers tells me to spread on thirty loads of manure to the acre, and harrow it in without disturbing the old turf. Another says spread on fifty loads and cross plow it. Which way will be likely to give the best returns in corn? Shall I cross plow in the manure, for potatoes, or harrow it in? Would pond muck answer as a manure, or would gypsum be better, or would you combine the two? If you will give your views on these questions it will greatly oblige a young farmer.

A SUBSCRIBER.

REMARKS.—Apply all the manure you can spare, per acre, immediately after plowing, and turn it under three or four inches, harrow with a sharp and long toothed implement moved at a quick pace. The old turf ought to be disturbed and thoroughly mingled with the other soil. If you can adopt the advice of your friend who says, "spread on fifty loads of manure and cross plow," you will hardly fail of a crop, let the season be what it may. Old muck and plaster would be excellent in the hill.

THE CROPS.—The *Chicago Tribune* of May 2d says:—"We do not recollect a season for many years, when on the first day of May the country has looked so beautiful, or the growing crops of wheat, oats and grass so thrifty, as they do now." Spring wheat, the *Tribune* says, is all in and up so as to cover the ground with its beautiful green verdure. The amount sown is fully *one-fourth larger* than ever before, and the prospect could not be more favorable. Oats, too, are generally in, and in some instances are already growing above ground. The amount sowed is probably about the same as last year. Corn had not been planted; but the farmers were busy in preparing their fields, and by the 15th it was thought the seed would generally be in the ground. The grass crop is said never to have looked better than it now does. The prospect is that it will be nearly double what it was last year.

The *Rochester Democrat* of the 5th says: "We learn from Ephraim Goss, Esq., of Pittsford, who has just returned from quite an extensive western tour, that in the six States through portions of which he passed, the wheat crop looks well, and there is a pretty large breadth of land sown. But in Southern Michigan, it surpasses any thing heretofore seen in the western country. It is considerably more forward than in Western New York, and promises such a yield as has never been surpassed in any portion of the Union."

The *Bangor Whig* of Monday says that the grass is starting favorably in that region, and is much more forward than at the corresponding period of last year, notwithstanding the rains have been light as yet.

For the New England Farmer.

WHAT A NATIVE COW IS.

Mr. Editor:—Dear Sir,—In reply to the inquiry of "W. S. L.," in the *Farmer* of the 5th inst., "What constitutes a cow of native breed?" I would respectfully say, that when I use the term *native*, it is in the sense generally given to it by practical, common sense men. Scarcely an article appears in relation to cattle, that does not speak of *native cattle*. He says he means by *native breed* one "indigenous to the country"—that is, according to Webster, "born within it, not exotic"—"not imported from abroad." How long an animal must have been within the country to entitle its progeny to be called native, it may not be easy to define. I have been accustomed to look upon animals as *native*, that are not clearly shown to be of a different character. It was in this view of the subject that I said "*nine-tenths* of all the stock of New England are natives. This expression may appear extravagant to a gentleman who has been brought up to look upon *improved imported stock alone* as worthy of notice; but I think it will not so appear to those common sense farmers who never owned any of the *imported stock*.

Far be it from me to discourage, in any manner, the introduction of such stock. I am glad to know, from so good authority, the degree of attention given to this stock in the county of Worcester. I presume there is no other county in the Commonwealth that can show a statement any thing like it. And, notwithstanding the intimation of the gentleman that some idea of the general characteristics of the stock of the county can be formed from these facts, I presume he will not hazard the assertion that even *one-fourth part* of the animals in his own cherished city are what he would term "improved cattle." "By their fruits ye shall know them," is a maxim as applicable to cattle as to persons; and when this rule is applied, and the best products of the county of Worcester are compared with the common products of some other counties within my knowledge, the *improved character* of their stock will taper off to a point almost imperceptible. I cheerfully admit that a stock of cows that yield a pound of butter each daily, for six months in a year, is entitled to be called good. I have rarely seen or known a stock doing better than this, on ordinary feed, whatever may be the breed. If I could find six native cows that would do this, at $50 each, I should prefer them to six of the best improved, costing $200 each, wherever found.

May 7, 1855. Essex.

RAIN IN SUMMER.

BY B. P. SHILLABER.

The farmer's heart was sad, his toil was vain,
His famished crops were crisping in the field,
For not one drop of life-sustaining rain
Did the red clouds of summer deign to yield.

The cattle 'neath the trees, with lolling tongue,
Gave up the search of herbage in despair,
And listless in the shade their heads they hung,
And chewed their cuds with most desponding air.

The brook was dry, or stood a muddy pool,
Whose stagnant waters none might dare to drink,
Which fate, in crystal brightness, pure and cool,
Wooed with its song the thirsty to its brink.

The burning sun drank up the pearly dew
That evening pitying, on creation shed,
And o'er the parched earth his hot beams threw—
The herbage sickened, and the flowers lay dead.

The river shimmered in its lurid rays,
The corn grew dry and withered as it stood,
The fainting birds scarce raised their tunely lays
In dim recesses of the ancient wood.

Then man and vegetation prayed for rain—
The withered stalks, like famished hands were raised;
But day by day was man's petition vain,
The clouds arose and vanished as he gazed.

At length the blessed boon, so long withheld,
Came like an angel down in man's dismay,
Cheering the heart, that well-nigh had rebelled,
And giving joy where grief erewhile held sway.

The thirsty earth drank in with greedy tongue,
The cooling flood that trickled o'er its breast—
The trees abroad their arms enraptured flung,
And grass and flower once more upreared their crest.

The brooks again resumed their gladsome song,
And through the meadows took their cheerful way;
Once more the corn its verdant pennons flung,
Once more the birds made merry on the spray.

The farmer's heart grew glad, and on his knee,
His voice attuned with warm devotion's strain,
He poured his soul in gratitude to see
The blessed coming of the summer rain,

Which falls, like God's own spirit, on the dust
Of man's fallen nature, dead in sin and pain,
Till with a newer hope and holier trust
It wakens into life and joy again.

Comparative Prices in 1846 and 1855.—The *N. Y. Journal of Commerce* publishes a tabular statement of the wholesale, or cargo prices of articles of consumption for ten years past—from 1846 to 1855, both inclusive. From this it appears that while a few articles, such as sugars and molasses, and certain kinds of tea and spices, are now actually lower than they were in 1846, the great majority of articles of consumption have advanced at a frightful rate from the average prices then quoted. Breadstuffs of all kinds are now nearly double what they were in 1846. For example:

Wheat flour	in	1846 was	$4,75	a bbl.	In 1855,	$9,81¼
Rye	"	"	3,06	"	"	9,75
Corn meal		"	3,25	"	"	5,25
Wheat per bush.		"	1,12	bush.	"	2,80
Oats	"	"	39	"	"	81
Corn	"	"	67	"	"	1,13

Liquors of various kinds have fortunately kept pace with breadstuffs. In 1846 Cogniac brandy sold at $2.62 a gallon; now, $4.70 is the wholesale price.

Sperm oil in 1846 sold at 91 cts. a gallon for crude and 93 cts. for manufactured; now the crude brings $1.79 per gall., and the manufactured $2.05.

Provisions of all kinds have advanced proportionably thus:—In 1846 mess pork sold at $10.68 a barrel; now it sells at $17.37½; mess beef then sold at $7.87, now, at $11.00; lard was then 6¾ cts. a pound, now it is 10 cents; butter was 17½, now 26 cents; cheese was 7¾ cents, now 11 cts. Rice was then sold at $4.00 a barrel, now it is $6.00. The greatest rise on any one article, however, we believe has taken place in grass seed. In 1846 Timothy is quoted (per barrel we presume) at $13.00, and now it is $28. —*Traveller*.

CORN PLANTS FOR FODDER.

There are few articles brought to market which are in greater demand than milk and butter—none, which it is more desirable that they should be sweet and pure, and presented in fine condition. The *best* butter has brought from thirty-seven and a half to fifty cents a pound in Boston market for several years past,—not at the stalls and market places, but supplied to families weekly, in small quantities. Beef is now, and will remain for some time, scarce, and prices will rule that will forbid a use of it in anything like the amount consumed heretofore, and butter, in one form and another will supply its place in a considerable degree. Butter is also largely exported, at the same time that there is a constant and rapid increase in the population, in a ratio greater, perhaps, than the means are increased for supplying it. There will unquestionably be a demand, at fair and remunerative prices, for all the farmer can spare.

It is now generally believed that *milk* is a nutritious and substantial article of food; that with bread, baked apples, boiled rice, hominy and other articles, it is better adapted to the system, even of laboring men, than a diet mainly made up of meats. In one or another of the forms mentioned above, it is common at the hotels and eating-houses in the cities, and hundreds daily dine upon it who have heretofore only considered it fit food for children or persons not engaged in laborious occupations. The change is a wholesome one, especially in our hot summers, and milk, in almost any quantity, will be in demand at fair prices. It is the only article, however, among the farm products, which has been sold at too low a price until within the six months just passed.

These premises being correct, it becomes an important consideration how cows shall be fed in order to produce the largest quantity and the best quality of each. Our pastures, throughout New England, and especially in Massachusetts, comprise the most unproductive lands we have; they have been overstocked and fed until exhausted of most of their original elements of fertility, and now require treble the number of acres to support a cow that they did forty years ago, many of them are upon hill-sides too precipitous for the plow, and others too stony to admit of cultivation, their phosphates exhausted and their vitality mostly gone.

It is not our purpose now to inquire how these may be reclaimed, fertilized, and made profitable, but to speak of another source of supply when close feeding and our scorching summer suns have exhausted the natural pastures of their grasses.

The maize, or corn plant, of whatever variety, is eminently adapted to our climate. It is hardy, easily cultivated, full of saccharine juices, and abounds in nutritious matter for cattle. They eat it greedily, including the stems when not grown too rank, it produces an abundant flow of rich milk, and yields two or three times as much per acre as our usual crops of grass. In addition to all these advantages, it costs so little for seed, and is so easily cultivated and brought to the cattle, that it commends itself to all who need a larger amount of green food for their stock than they are able to obtain from their natural pastures.

Between *two* and *three* bushels of seed to the acre is probably the quantity required for sowing; sow in highly manured drills, three or three and a half feet apart, cultivate and hoe thoroughly, and the rapidity of growth and amount produced will be surprising. In cutting it up do not cut below the lower joint, as that will materially check the after growth.

Most persons use the white flat southern corn for seed, but varieties of sweet corn, as well as our common field corn, are used. We have succeeded admirably with the white flat.

A writer in the *Albany Cultivator*, in 1843, states that in the spring of 1842, he prepared two squares in his garden, each 20 by 30 feet, and sowed them with corn—about two quarts to each square, which he found too much. When about waist high, he commenced pulling it up by the roots, and feeding it green, to a fine Durham heifer and some pigs; the latter devouring it as greedily as the former. He pulled up and resowed these squares four times during the season, and kept the animals in the finest order, without anything else worth naming, and was satisfied that nothing else will produce *half* as much, as corn thus planted or sown. Every time he stript a square, it was forthwith highly manured, and at once spaded up and resown; he generally fed the corn as it was pulled up.

It will be observed that this writer obtained *four* crops in a single season. Two stout crops may be obtained in New England, and in favorable seasons, when there are no severe frosts until late in September, *three* crops.

Corn plants make an excellent fodder when permitted to grow to nearly their usual size, and then cut and dried as hay is made—but the labor of drying is so great that it will not be generally used as fodder in that shape.

RUMINATION—OR, RE-MASTICATION.

Written for the New England Farmer,

BY GEO. H. DADD, VETERINARY SURGEON.

MR. EDITOR:—Sir,—I notice, in a recent number of the *New England Farmer*, an article written by one who appears to be skeptical regarding the phenomena of *rumination*, or re-mastication of food by ruminants—oxen, sheep, &c.; and I have thought that a few remarks, under the above heading, may interest your readers. In fact, the article requires that some notice should be taken of it, because it promulgates an error, inasmuch as the writer undertakes to show that *re-mastication is a matter of impossibility*, &c.

It is the first instance, within my own observation, that an *husbandman* has ever doubted the theory of *rumination* in *ruminants*. Lest, however, there shall be others in the same state of ignorance, I propose to offer a few remarks on the anatomy and physiology of the digestive organs, considering only the stomach and its appendages.

We shall first notice the *œsophagus*, or gullet. This is a strong membranous and muscular tube, extending from the mouth to the cardaic, or upper portion of the stomach, which gradually enlarges as it descends, and finally terminates in what is termed the *demi*-canal. It has, however, prolongations into the third and fourth stomach's. It is composed of four coats or layers, viz., an external, two middle, and internal; these are united by means of cellular adhesions, so as to admit of contraction and expansion.

The principal parts deserving notice are the middle coats; these are composed of muscular fibres, arranged spirally, in contrary directions, so as to admit of *descent* and *ascent* of food and cud; and, at the same time, lengthen or shorten the tube—increase or decrease its calibre.

THE STOMACH.

The stomach is subdivided into four distinct cavities; the *first* is named *ingluvies*, or paunch; the *second*, *reticulum*, or honeycomb. They are not, however, considered part of the true digestive stomach, but merely dilations of the œsophagus, used as receptacles for crude aliment.

The *second* cavity is remarkable for the reticulated appearance of its interior, resembling honeycomb, having a large number of cells. In the stomach of the camel they are termed *water-cells*, and the animal has the power to close their orifices so as to retain their fluid contents; and possibly all ruminants have, to a certain extent, the power to perform the same feat, so that they can exist without water much longer than a horse.

The *third* compartment is commonly termed *manyplies*, from the peculiar arrangement of its interior, disposed like the leaves of a book, and terminating in the centre by an assemblage of free edges, thus affording an extensive surface within a small space.

The *fourth* is termed *abomasum;* this is the true digestive stomach. In the calf it is termed *rennet*, and, by means of its organic acid, derives its extraordinary power of coagulating milk.' Interiorly it is lined by a soft villous membrane, congregated in longitudinal folds; these, as they approach the *pyloric*, or lower outlet, are more irregular, running in various directions. The parts are studded with innumerable glands, which secrete the gastric juice or true digestive fluid. On the lower part of the fourth stomach we find the pyloric outlet, within which is a valvular projection; this, aided by the joint action of circular fibres, prevent crude materials entering the *duodenum* until they are properly comminuted, so as to form, through the action of bile and pancreatic juices, an homogenous mass of nutriment.

Posterior to the *pylorus* we have the *duodenum*, termed in non-ruminants—man and horse for example—second stomach; into which, through their respective canals, the bile and pancreatic fluids enter, and this is considered as the commencement of the intestines.

The demi-canal, just alluded to, is in the region where the opening into the various stomatic compartments approach each other. Ordinarily, it is a mere groove or duct; but by voluntary act, or not, as the case may be, it can be converted into a tube, the inlet of which is the termination of the gullet, and the outlet or posterior part is over the region of one or more of the apertures.

Having thus briefly treated on the anatomy of the parts, we shall next offer some physiological remarks.

The food, having entered the mouth, undergoes a slight mastication, and is somewhat insalivated by the salivial fluids. In a rough and rather bulky form, it passes down the œsophagus and enters the demi-canal; its rough, and consequently irritating surface, coming in contact with the lips or pillars of this canal, act as a stimulus and arouse a set of involuntary movements, which result in a separation of the pillars, so that the half-masticated food falls into the first or second compartments of the stomach. The mere fluid and pulpy portions, being retained in the mouth and œsophagus, flow gently onward without causing the pillars to separate, and are thus conveyed to the third stomach, and from thence to the fourth.

That portion of food which enters the first and second compartments, after being slightly masticated, is, by a reverse peristaltic action, forced, in the form of globular pellets, into the demi-canal, and thus at regular intervals ascends through the gullet into the mouth. After a second mastication, the same process is repeated, and so on to the end.

The condition of food, therefore, as to bulk and solidity, is the circumstance which determines the closure or opening of the demi-canal, and which, consequently, regulates its passage into the first and second, or third and fourth copartments. For example: if a cow be fed on thin, washy diet, needing no re-mastication, it will pass on to the third and fourth. This is the case with a calf; the milk, which forms its nourishment, passes on to the true digestive stomach, the aperture leading to the first, second and third, being contracted from a narrow, undivided tube, which constitutes the demi-canal.

From this fact, I contend that a ruminant has no power, as some persons suppose, to give a certain direction to food and lodge it in any part he chooses. The whole function of digestion is *involuntary*, and is governed by that same power which causes the heart to pulsate; expands the lungs; secretes bile, pancreatic juice and urine, without the aid or consent of the individual. We may, however, to a certain extent, increase or decrease these functions; but their primary operations are uncontrollable by us, simply because they are involuntary. It is probable, however, that when the animal is imbibing a large quantity of water, much of it passes into the first and second copartments; and the same is true of fluid medicine; when forced down in a rapid manner, it goes the same route, instead of passing, as it should, into the true digestive cavity. Remember this, ye who drench cattle. Remember, also, that medicine must never be given to cattle in the form of a ball, or bolus, for it is almost sure to break through the pillars of the *canal* and fall into the paunch, and perhaps do more harm than good; to say the least, its operation will be uncertain. Hence it follows that fluid medicine is best adapted to the diseases of cattle, and such must be poured down the œsophagus in a slow and careful manner.

Now let us see if we understand the sensible phenomena of rumination; this will afford the most convincing argument to meet any scepticism that may arise as regards *re-mastication*.

The best subjects for demonstrating the compound act of mastication and rumination, are animals with long, lean necks, such as the *giraffe*, *camel*, *lama* and *dromedary*; but in ordinary cattle, not overburthened with muscle or fat, there is no difficulty in the way. For example: let a person stand on the left side of the animal, in the region of the neck, (supposing the latter to be in the *ruminating mood*.) He perceives the cud re-ascend through the gullet and re-descend again into the stomach. At the period of re-ascension, place the ear in the region of the gullet, and a gurgling sound will be heard, different from that accompanying re-descension. The action has been described as *undulating*—alternate—coming and going like the motion of a ship; but this is regulated by the respiratory movements and different attitudes of the body. We can, however, at the moment of re-ascent, perceive a flank movement, deep inspiration, succeeded by rapid expiration, showing conclusively that a powerful nervous concurrent force—involuntary—controls the action of rumination.

Finally, the cud can be made to ascend or descend, in the following manner: we perceive the cud descend, now grasp the gullet firmly, and it re-ascends into the mouth. We next perceive the cud ascending; arrest it by compressing the gullet, and it rapidly descends again into the stomach; hence the phenomena of re-mastication can readily be demonstrated.

In view of confining this article to the limits prescribed by journalists, I now refer the reader to a diagram of the cow's stomach, to be seen at the office of this paper. G. H. DADD.

NUTRITIVE QUALITIES OF MILK.

In the Medical Convention, lately in session at Philadelphia, Dr. N. S. Davis, of Chicago, presented a report on the nutritive qualities of milk, and also on the question whether there is not some mode by which the nutritive constituents of milk can be preserved in their purity and sweetness, and furnished to the inhabitants of cities in such quantities as to supersede the present defective and often unwholesome modes of supply. The report says that when railroads were opened into the interior of the country, it was said that milk would be furnished to the residents of cities in the purity that it was found on farms, but a sufficient time had elapsed to demonstrate that such is not the case. The conveyance of the milk from the farm to the cars, the transit on the railway, and the time lost in its delivery throughout the city, it was clearly shown, had the effect of making it unfit for the nourishment of a child. During the past half century, experiments had been made with a view of preserving milk in its pure state; yet it was but recently that a discovery had been made, by a gentleman in New York, which was to evaporate the water and mix with it white sugar, which rendered it what is termed solidified milk. In his practice he had used this improved milk for the nourishment of infants with the most gratifying results, and after having kept it for three months; and he knew of its having been kept twelve months without any injury to its qualities.

THE COURSE OF TRADE.—According to the *Louisville Journal*, that city is entirely run round by the recently constructed railroads through Ohio and Indiana. The course of travel and trade has left the Ohio river, and all the important cities—Cincinnati not excepted—are suffering in consequence; while inland cities, which a few years since had nothing but a sleepy future in prospect, have suddenly awakened to life and energy. The *Journal* says:

"We know of no other city in all this vast Union that is just now suffering so much injury from the effects of the superior enterprise of other communities as Louisville. The construction of numerous railways in every direction, North, East and West, while none have been built South, has had the effect to divert both travel and trade from her, and no effort worthy of respect has been made to counteract this tendency. Cincinnati has also been a sufferer from the injurious influences of the network of railways that have been spread out on the North between that city and the lakes. But her citizens have had the sagacity to perceive the evil; and to remedy it, propose to extend railroads to the South, which will give to Cincinnati a decided advantage in competing with Louisville for the trade in that direction."

LOOK TO YOUR BEES.

There is no part of the business of the farm which has in itself a higher or more pleasant interest than that of bee-tending and the production of honey; but in order to realize this pleasant interest, there must be a certain degree of knowledge of the nature and habits of the insect, and of what kind of a home and accommodations it needs in order to facilitate its labors and find a profit from them. These will require some experience, some reading and a good deal of observation. About all we can do in a newspaper article is to call attention to the subject, and make a few general remarks.

The common idea is, that the moth-miller is the great destroyer of the bee, and such is the fact, but not primarily—there is a serious existing difficulty before the miller begins its depredations, the swarm itself is weak and declining. Clean and well-fed cattle in good condition, are seldom annoyed with vermin, nor do we believe that perfectly healthy fruit trees are often attacked with borers; it is the already diseased, or neglected, in both cases, that become the sufferers. The miller has the sagacity like an able general, to approach where it will meet the least resistance; it then enters the citadel, quietly encircles it, saps the foundations and destroys it.

Our first suggestion, then, is, in the words with which we began—"Look to your Bees"—if they are weak you must unite two colonies and make them strong, or if they are already molested, dislodge their enemies, and let them have a fair chance for life and labor.

Hives should be so constructed as to afford an opportunity for examination without disturbing the bees; if the moth is at work, or if the hive needs cleaning or repairs, it can be seen and the evil corrected. With the old-fashioned hive, little or nothing can be done, but occasionally to destroy a swarm and take the honey. A weak hive will swarm late, and in that case it scarcely has time to collect a winter's stock of food, and thus its weakness is perpetuated. We want them early, for,

"A swarm in May, is worth a load of hay;
A swarm in June, is worth a silver spoon;
A swarm in July, isn't worth a fly."

Have hives prepared for the new-comers, and everything in readiness for their reception when they come out. If they seem uneasy when about swarming and show a disposition to leave, sprinkle them with the aid of a large syringe or in any other practicable way, and if the water reaches them they will soon light.

But we earnestly recommend to all apiarians and lovers of these interesting insects, the careful perusal of *Langstroth's* work on bees, where he will find more valuable information and directions for their management, than it is in our power to give.

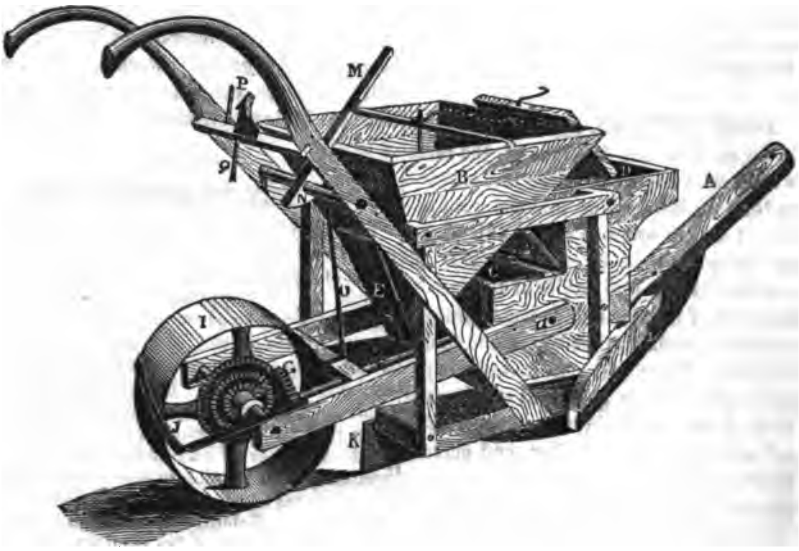
THE PRESENT CRISIS.

The political and miscellaneous press abound in advice to the farmers, the burden of which is "*sow and plant all you can*, that the wants of the people may be supplied." Such advice, I think, should always be given with a caution. Farmers have a *mania* of the plowing and sowing order, which propels them sufficiently in that direction without foreign aid. High as are the prices for grain, they are less exorbitant, if possible, than the prices for butter, cheese, meat, &c., the product mainly of hay and grass. It is quite as necessary that we should now look to a good supply of *grass* as of grain. Milk, as an article of diet, is not sufficiently appreciated. A good supply of milk and of dairy products depends essentially upon a good supply of grass, and the same may be said of beef and mutton, and even pork.

Plowing and sowing too much is the great fault of American farmers. We need more and better grazing lands. When a field ceases to produce a fair amount of grass, it may become necessary to plow, *till thoroughly*, and seed again; and it must be confessed that a large portion of our grazing lands are less productive than they might become. But when fields conveniently situated and adapted to general tillage are once "broken up," they are, as a general rule, allowed no rest till the vegetable mould and the elements of grain are so nearly exhausted that they will produce very little of either grass or grain.

The amount of fertilizers applied to our land is utterly disproportioned to the ground under cultivation, and the labor is as scanty as the manure. We are bringing so much virgin soil under cultivation that it seems almost impossible that we could "use ourselves up" for a generation or two to come, but the frequent recurrence of poor crops seems to indicate that we are already abundantly enjoying the fruits of our improvidence. I am warranted in saying that all our agricultural products ought to be produced from half the land now employed.

My advice in the present emergency is this: Plow and sow no more, and in many cases *less*, than usual. Find out by reading and observation the best methods of tilling your land, and adopt them. Procure the best tools, and an abundant supply of labor-saving implements. Secure plenty of help. Work your ground thoroughly and in many cases *ditch* it without delay. At all hazards, and at any reasonable cost, be up with your work. Exterminate all weeds. Save, procure and apply to your land whatever will enrich it. Let all the slops of the house be used for watering the garden. Let all the villages and cities be ransacked for food for plants. Be diligent and trust Providence. *Rural New-Yorker.*



WOODWARD'S IMPROVED SEED PLANTER AND MANURE DROPPER.

Anxious to lay everything before the reader that will tend to facilitate his labors and enable him to realize a large return for them, we give above the engraving and description of another labor-saving implement. We have *examined*, but not used it; it seems to be constructed on correct principles, and has been used for several years in the western part of the State. The inventor's description is as follows:—

"These labor-saving and profit-yielding machines are presented to the public, as being of much greater utility than any other implements ever presented for saving of labor and increase of crops. Corn, broom-corn, carrots, and other small seeds, may be planted and cultivated with less than one-half of the expense of the hoe, and in the most perfect manner, removing coarse substances nine inches each way from the line of the row, smoothing and pulverizing a strip eighteen inches wide, in the centre of which the plow on the under side cuts a channel at any required depth, making the earth still finer, into which the seed is dropped while the ground is moist, causing it to swell immediately, and being covered of equal depth, it comes up from one to three days sooner than when covered with the hoe, thereby getting a start of the weeds. It plants in the hill or drill, depositing any suitable number of grains at almost any given distance. Ten acres are an ordinary day's work for a man and horse. When properly made and used, it gives universal satisfaction. More than two hundred have been sold in Hampshire and Franklin counties. Plaster, lime, ashes, bone-dust, or any other dry fine manure, the machine can drop upon the seed before it is covered, from one to forty bushels to the acre. It was awarded the first premium (a medal and diploma) at the great trial of agricultural implements at Geneva, N. Y., in 1852; it has also taken the first premium at all the State and County Fairs where I have presented it, and in many other places. Also, at the World's Fair in New York."

COMMON THINGS.

In raising vines from cuttings, those which are furnished with two eyes each will be sufficiently long for the purpose; the lower part should be planted singly in small pots filled with good mold, leaving the upper eye rather below the surface than above it. The pots should be placed either in a stove or in a hot-bed, allowing the plants room as they advance in height, and shifting them into larger sized pots when they have filled the first with roots. As the season advances they may be removed into the stove and other hothouse, and from thence to the greenhouse, keeping them neatly tied up to sticks, and allowing them plenty of air, to prevent them from being drawn up weakly. Vines raised from single eyes require the same management as those from cuttings, beginning only with a smaller sized pot, and removing them into others as they gain strength and it requires room. Those raised from cuttings, as well as these, should be kept under glass throughout the summer, and a judicious application of liquid manure during the growing months, would considerably promote the growth of both.

Cauliflowers.—The seed should be sown now for the autumnal crop upon a gentle hot-bed. This sowing will come in during August, and for a later crop the seed should be sown the beginning or middle of May; this will furnish heads in October or November. If some of the plants of this last sowing be taken up and laid in like Broccoli, they will be more secure in case of cold, wet weather occurring at the end of the season.—*Gardeners' Chronicle.*

DUTIES OF THE FARMER TO HIS FAMILY.

Dr. J. REYNOLDS recently delivered a lecture before the Concord Lyceum, upon the "Duties of Farmers." We propose, with the Doctor's consent, to present to our readers some extracts from this lecture. Under the head of "Duties to his Family," he remarks,

"Order and neatness are among the marks of good farming. Where these are wanting in the arrangements about the house and farm-buildings, they will be wanting on the farm. The farmer is bound to train up his family in good habits, and habits of order, by which everything shall be kept in its place, and everything done in its proper connection, and habits of neatness which shall lead to the instant detection and removal of every nuisance, are among the good habits in which children should be trained from their infancy. The health, the comfort and the respectability of his family demand this at his hand.

Among the provisions which the farmer should make for his family, are all those arrangements and utensils which are calculated to save time and labor and strength. There is much hard work to be done in the family of the farmer, and on certain days, and at certain seasons, the females are tasked to the full extent of their strength and powers of endurance. Now, I would not recommend that you should get every new pattern of cooking-stove, or washing machine, or churn, that you may see advertised in the newspapers. But I would have you keep those that you have in good order, and in a condition always ready for use. Have them in a convenient place, and so arranged as to save steps and strength as much as possible.

Provide for the happiness of your family. Many little attentions to their comfort, and arrangements by which their labors may be facilitated, contribute much to promote their happiness. The mistress of the family has many things in the care of her children, and in the labors of the family, to exhaust her strength, and to try her feelings, and the good wife will not fail to appreciate all the arrangements you may make for her relief, and will amply repay you by her cheerful smiles, and increased patience and sweetness of temper.

Never require the females of the family to do those things which properly belong to the other sex. They should not be required to split the wood, or even to carry it into the house; to shovel the snow from the clothes-yard, or to sweep the paths and alleys around the house, or carry pails of food to the hogs, or dig the potatoes for dinner. Many a farmer's wife has been, and now is subjected to drudgery of this sort. But it is to be hoped that the days of such service are nearly ended. All such labors should be considered a part of the daily business of the farm, and should be attended to in their season. The man who loves his wife, and wishes to make his home a happy one, will regard her feelings, and never subject her to mortification or degradation. Nature has implanted in the heart of every woman a desire to appear well in the eyes of others; this desire should never be contravened unless it oversteps the bounds of propriety, but should be indulged so far as your means will justify. It is associated in her mind with the feeling of self-respect, which is one of the best safeguards of virtuous character. Never by unremitting toil, render that fair and blooming countenance, and those delicate features coarse and harsh, and cause that beautiful, active and symmetrical form to become bowed and crippled and distorted by incessant drudgery. Remember that woman is not endowed by nature with the same muscular strength and power of endurance, that she has given to man. Her strength consists in her weakness, which appeals to you for support and protection, and in her beauty and gentleness, which appeal to your love and affection. And in all the arrangements of the household, you should remember that the duties of woman are not to be accomplished by muscular power and brute force, but rather by skill, by tact, by perseverance; and in proportion to the extent of her labors and cares, should be the facilities and aids supplied to her. Thus will her strength be spared, and her time saved for the cultivation of her mind, for the instruction of her children, and for the performance of those gentle charities, that so peculiarly adorn the female character. And how much more cheerful, aye, and successful too, will be the labors of the field, when the sweet and cheerful smile of the contented and happy wife meets you at the threshold, and sheds sunshine through your dwellings.

Another and most important duty which the farmer owes to his family, is to supply them with the means of moral, intellectual and religious culture. Let your children be trained from their earliest infancy to be affectionate, kind, obedient, truthful, industrious, and as fast as their intellect is developed let it receive appropriate culture. Never grudge the cost of books, periodicals or papers, or taxes for the institutions of learning. Money paid for the instruction of your children is the best investment you can make for them, and remember that as the world advances in knowledge, and the comforts and conveniences of life increase, the standard of education must be elevated from generation to genertion. It is not enough that your children are instructed in those things that you learned in the schools of your boyhood. They must be taught those things that you now, in your manhood, feel that you need to know. There has been as you all know, a great revival of interest in the cause of education, within a few years past. Catch this spirit that now pervades New England, and let it enter into all the arrangements for the education of your children. But I must cut short my remarks upon this copious theme and will only add, that you cannot afford to dispense with the institutions of religion, for to these, we in New England, are greatly indebted for our worldly prosperity. Teach your children to reverence the sacred word, to remember the Sabbath day, and to do to others, as they would that others should do to them; and never forget that in all these respects, your own example is the most efficient teacher, and that the lessons they are thus taught, will make the deepest impression upon their minds."

EXTRACTS AND REPLIES.

CALVES' TAILS AND WIND SPAVIN.

MR. EDITOR:—Does it benefit calves to cut off their tails? (*a*.)

Can you tell the cause and cure of wind-spavin on horses' legs? (*b*.)

Will you, or some of your correspondents, answer the above? L. B. PETTINGILL.

Weston, Vt., May, 1855.

REMARKS.—(*a*.) The cutting off of the tails of calves or cattle is a cruel and barbarous custom, conceived in ignorance, and the practice is continued because our fathers did it. It disfigures the animal, and subjects it to annoyance and suffering from insects in the hot season. So the old and foolish notion prevails that cattle have the *tail sickness*, that the end of the tail becomes soft, and the only cure is to chop off the end of that useful and graceful appendage, leaving an unsightly stump which any cow would be ashamed to wear, even if her owner is not ashamed to see it.

(*b*.) Spavin is occasioned by straining the tendons or little vessels which contain a liquid or mucous to enable the tendons to slide over each other easily. These vessels are enlarged by violent exercise, too; one of them may frequently be seen on the inside of the hock at its bending, considerably increased in size. Spavin is of two kinds, *bog-spavin* and *blood-spavin*, and is difficult to cure. A close bandage continued for a long time, will sometimes effect a cure, but if the horse has a hard pull again it is apt to return. Bleeding is resorted to by some, but is a dangerous and not often successful remedy. We would recommend frequent bathing of the enlarged parts with very weak, cold, arnica water, and to give the animal fair treatment, both in the carriage and in the field.

But preventive is better than cure. Spavins are usually the evidences that the horse has had a hard master—but not always.

HOPS.

MR. EDITOR:—I am a constant reader of the *Farmer*, and have had an eye, and some years a hoe, to the hop business for more than twenty years.

I have the *Farmer* of Feb. 3, in which you state, in answer to "Culture of Hops," that the cost of raising and curing a pound of hops is about five cents. The hop folks of this county must disagree with you as to the cost of hops per pound. Your remarks agree with my own views. About twenty years ago, I sold my hops in Montreal, for two years in succession, at six and a half dollars a hundred. We think here that hops cannot be afforded less than ten or twelve cents per pound, at the least.

REMARKS.—The cost per pound was stated by us at five cents, as estimated by practical growers in this and other States. The cost must, of course, vary according to circumstances, as value of land, location, labor, the amount of manure required, &c. We do not think the business profitable when the prices are less than ten or twelve cents per pound. The price has averaged more than fourteen cents for the last fifty years, at times, however, falling so low as six or seven cents, and once as low as five cents per pound, at which it is a losing business.

RED RUSSETS.

We have received from HERVEY TUFTS, Esq., of Manchester, N. H., a box of apples which he calls the Red Russet—and the name is appropriate—which are now this tenth day of May, as hard, plump, and fair probably, as they ever were. The color is a dark red, but bright on the sunny side, and covered with minute grayish dots. They are of medium size, stem slender and about an inch long, calyx small and in a shallow basin. They have a pleasant, sprightly flavor, and we should pronounce them, judging from the specimens before us, apples worthy of extensive cultition. We should be glad of a few of the scions. The tree upon which they grew is a very old one, supposed to be a seedling, and is on the farm of S. W. MANSFIELD, Esq., of New Ipswich, N. H. The tree was called an old one forty years ago.

WHITE THIMBLEBERRY.

MR. EDITOR:—Knowing you to be interested in all matters pertaining to horticulture, and seeing an inquiry in one of the *Farmers*, in regard to the white blackberry, I would announce a new fruit of which I claim to be the originator; it is the white thimbleberry; if you, or any of your correspondents, have ever seen any of this excellent fruit, I should like to know it.

A READER OF THE FARMER.

South Reading, May, 1855.

TICKS ON SHEEP.

Will you tell us the best way to kill ticks on sheep and lambs without injuring the animal?

Deerfield, N. H., 1855. A SUBSCRIBER.

Yes, sir. In the first place keep the sheep in healthy condition by plenty of good food, say clover hay cured with the leaves on, a few turnips, beets or carrots cut fine, and an occasional feed of grain or beans,—allow them a free choice to remain under cover or to go out doors as they please, and then, if they are infested with ticks, put a little yellow snuff close to the skin on various parts of the body, or a little linseed oil, but do not use spirits of turpentine or mercurial ointment only as a last resort. There is an ingenious little article for sale to fumigate or smoke the sheep and kill the ticks by blowing strong tobacco smoke among them.

BOILING WATER ON FRUIT TREES.

Mr. Editor:—Can you tell me anything of the effect of boiling water poured around the roots of choice fruit trees? A lady from New Jersey, who is much interested in horticulture, says, if poured over the roots of the cherry tree in spring, it destroys the germ of insects deposited there, and makes the tree fruitful. I have never seen the experiment made, but I once rather mischievously poured a pailful of boiling water over the roots of a large grape vine, which had shaded the window inconveniently for many years, without yielding fruit, for the purpose of destroying it; and the result was, that it matured fruit that season, and continued to, for many successive ones.

If it is useful, at what season is it best, and how much may be applied with safety? F.

East Charlemont, May, 1855.

Remarks.—The above inquiry and remarks are evidently from one of our numerous female readers, who are becoming interested in what relates to the garden and farm. Hot water poured upon the roots of peach trees will prevent the curl of the leaf, and rejuvenate the whole appearance of the tree. We have never tried it on plums or cherries, but it is not clear to us why it would not be as beneficial to either of them as to the peach. Apply it in April.

HEMLOCK TREES—AGRICULTURAL IMPLEMENTS.

Mr. Editor:—In answer to the gentleman at Gilford, N. H., upon peeling hemlock trees, I should say let them alone, till you are ready to peel them. My reason is this; all hemlock trees, as far as I have noticed, when blown down, if the roots are part of them fastened still in the ground, peel better than those which are broken off entirely. I suppose the circulation of the sap commences in the spring, and is by the remaining roots carried to the body of the tree, while those broken off have no roots from which the tree may derive sap.

Will you please ask those who advertise agricultural implements in your paper to write the price with the advertisement, and oblige many of your readers. B. J.

Campton, N. H., 1855.

AIR IN WATER PIPES.

A. S. Worthen, New London, N. H.—Is the upper end of your pipe below the surface of the water in the well? If not, the air is drawn in and partially prevents the passage of the water until it is forced through the entire pipe. When the pipes are below the water, a chemical action by the water on the pipe generates a *gas*, which, in many cases, has the same effect as common air. I have frequently been obliged to use a force pump to remove this *gas*, when no air could possibly get into the pipes.

Prof. Tinker, P. J.

Plumberton, Vt., April 20, 1855.

POTATO ONION.

Thanks to a "Subscriber," at Nantucket, for a box of the potato onion. We shall plant them.

GROUND NUT, OR INDIAN POTATO.

Can any one give information concerning the *Groundnut* or *Indian Potato?* Has any attempt ever been made to cultivate it, and with what success? Is it not possible to improve this "child of mother earth" by care and culture so as to make it a valuable root? G. F. N.

SUBSOIL PLOW.

To J. G., *Northumberland, N. H.*—Prof. Mapes' diamond-footed subsoil plow is probably the best now used.

GUANO FOR A SINGLE YEAR.

Please inform me what kind of fertilizer to use upon a corn crop to the best advantage for this year. I intend to plant some eight or ten acres of river-land to corn; the soil is a deep, sandy loam, and is inundated every spring. I have no manure to put on it. The land has been previously pastured. R. Harriman.

Henniker, N. H., 1855.

Remarks.—We saw a field of land similar to that described above, manured with guano, 300 pounds per acre, on two acres, and on two adjoining acres fifteen ox-cart loads of good manure applied; the result was 56 bushels of good corn to the acre. We have no doubt you may succeed in securing a fair crop for *a single year* with the guano, perhaps longer, but it is rather at variance with the true principles of the science that you should for successive years. The farmer's prime object must be to collect all the manure he can from the farm itself.

HOW SHALL I SOLDER?

Query—I have a pipe case to attend to at the outlet of an aqueduct where there is 60 feet fall, and it is *impossible* to get at the upper end of the pipe to stop the water. I wish to solder a pipe, to extend the main line four rods further. It is impossible to solder where a drop of water is pressing out. Will some brother *tinker* give me the answer? P. J.

BOSTON VETERINARY INSTITUTE.

We are glad to learn that Dr. Dadd has succeeded in obtaining a charter to incorporate the Boston Veterinary Institute. The corporators, and their associates, are invested with University powers, and permitted to hold property to the amount of twenty-five thousand dollars.

We learn that the first session of this institution will commence in the month of October.

A prospectus will soon be issued, so that the public may be informed of the objects of this novel enterprise.

Dr. Dadd.—The attention of the reader is called to an article in another column, upon the subject of re-mastication by our neat stock. Dr. Dadd has kindly permitted us the use of an expensive diagram, for a short time, which hangs in our office, and may be examined by the curious.

For the New England Farmer.

THE WINTER IN CANADA.

A long and severe winter has just passed, and perhaps a summary review of the weather in this vicinity may not be uninteresting to New England readers. Cold weather commenced early in the 11th month, 1854. On the morning of the 5th, the mercury fell to 14°, and I learn by the *New England Farmer* that it fell to the same degree in the vicinity of Boston. From the 1st to the 4th, the range of the mercury was 40°, which was also the range for the month, the extremes being 54° and 14°.

With the 12th month, winter began to reign in reality. Snow fell every day of the first seven, and it was two feet deep in the woods. On the morning of the 19th, the mercury fell 18° below zero, and the 22d it was below zero all day. The mean temperature from the 17th to the 23d, inclusive, was only 3.95° above. The mean of the 19th was 9°, of the 22d 8°, and of the 23d zero.

The 1st month, 1855, was milder, yet the mercury fell to 14° on the morning of the 25th, and we had some severe snow storms; not less than four and a half feet fell during the month. The 2d month, however, caps the climax of cold.

On the morning of the 5th, the mercury fell to 28°, which is lower than it had fallen here in twenty-five years; yet we were destined to experience a greater degree of cold than this. The 6th was the coldest day on record in this county. At 6 o'clock, A. M., the mercury fell to 38°, and the mean temperature of the day was 24½°. The highest temperature of the day was 9° below zero. The extreme cold weather was not confined to this section of country, but it extended over a large area in this latitude. In Carroll county, N. H., a little south of us, and 400 miles east, the mercury fell to about the same degree. At Watertown, and some other places in the northern part of New York, it fell to 40°. At this place, the mean temperature of the month, at 6 o'clock, A. M., was 6.96°.

The weather in the 3d month was variable, yet its *blustering* reputation was fully sustained. We had a great deal of wind, and some tedious days, yet the mercury did not fall below zero.

At the beginning of the 4th month, a great deal of snow lay upon the ground; but,

"At last from Aries rolls the bounteous sun,"

the snows dissolve, and earth, divested of her winter mantle, assumes her vernal robes. Sleighs were in use until the 5th. People began to talk of the certainty of a late spring, but the snow melted rapidly, and there being little or no frost in the ground, it dried fast, and at this time the season is as forward as usual. Considerable plowing has been done, and some grain sown. Grass starts finely, having been well washed by winter rains, and the greater part of winter grain looks remarkably well. I think the prospect for a crop is considered good.

Robins, black-birds, swallows and blue-birds, came about the middle of the month. Larks are now singing their matin songs, and we have now a full choir of vernal songsters, which, with the few wild flowers that are seen in the borders of forests, serve to enliven the heart of nature's lovers.

We have had some sudden changes in temperature during the winter. In the afternoon and night of the 11th, of 2d month, the mercury fell 50° in 17 hours, and in the afternoon of the 21st it fell 21° in four hours. From the 6th to the 11th the range was 80°.

The mean temperature of the 11th month was......36.66°
" " " 12th..."...............20.40°
" " " 1st...."...............26.66°
" " " 2d....."...............15.91°
" " " 3d....."...............29.14°
" " " 4th...."...............42.11°

Total depth of snow which has fallen at this place this winter, 10½ feet. L. Varney.

Bloomfield, C. W., 5 *Mo.* 1*st*, 1855.

For the New England Farmer.

A HOME PICTURE.

BY MRS. ANN E. PORTER.

An old man sat by the chimney side,
His face was wrinkled and wan;
And he leaned both hands on his stout oak cane,
As if all his work were done.

His coat was of good old-fashioned gray,
With pockets both deep and wide,
Where his "specs," and steel tobacco box,
Lay snugly side by side.

The old man liked to stir the fire,
So, near him the tongs were kept;
Sometimes he mused as he gazed at the coals,
Sometimes he sat and slept.

What did he see in the embers there?
Ay! pictures of other years;
And now and then they wakened smiles,
But oftener started tears.

His good wife sat on the other side,
In the high-backed flag-seat chair;
You see 'neath the frill of her muslin cap
The sheen of her silvery hair.

She wears a "blue checked" apron now,
And is knitting a sock for *him*;
Her pale blue eyes have a gentle look,
And she says "they are growing dim."

I like to call and tell the news,
And chat an hour each day,
For it stirs the blood in an old man's heart
To hear of the world away.

Be kind unto the old, my friends,
They're worn with this world's strife,
Though bravely once perchance they fought
The battle here with life.

They taught our youthful feet to climb
Upward life's rugged steep;
Then let us lead them gently down
To where the weary sleep.

Letters.—The April number of the *New York Quarterly Review* has an article on "Post Office Improvements," in which it is stated that the Boston people annually average about thirty-three letters each; those in New York about twenty-four; in Philadelphia fourteen; in New Orleans about sixteen; and in Baltimore ten. In the aggregate of the large cities of the United States there is an annual average of about twenty letters to each person. In the country districts there are only about three letters annually to each person, and in the whole United States about four to each person.

For the New England Farmer.

SMALL POTATOES.

MR. EDITOR:—As it is now becoming necessary to put potatoes into the ground, if a crop would be secured for the next season, it is an important question at present prices, whether small potatoes will be fit for seed. On this, much has been written, as you know, and I presume much will be, before it is settled, for every man will continue to act on his views, and consider that the only right way.

Many years ago my father began to carry on a farm. He was told he must plant large potatoes, so the best were selected for the field and second quality for the table. He dug the next fall, about 100 bushels of potatoes, not one of which was large enough for the table. The next year these *little* potatoes, on the same land, produced an excellent crop of good potatoes. After that he kept the large ones for the table and the smaller for the field. Nor can I allow that our crops were inferior to those of others on similar land. We once planted on a bog meadow we were reclaiming, some small potatoes left of the previous year's produce, and some assorted potatoes purchased in Boston. We could see no difference in the result.

Some four years since, I took possession of a house in Connecticut. I found in the cellar about a peck of potatoes, not larger then robins' eggs, *literally*. I took them into my garden to plant, and a neighbor to whom I had let a portion of the garden, fairly ridiculed me for it. He planted only large potatoes without cutting in the row next my small ones, his having the best cultivation When we dug them, my small potatoes showed full as many and as large as his. Last year I planted some *assorted*, and some *sorted out*; yield so nearly the same as not to be perceptibly different. Now I have never made any experiment by weight, but I think these not without value. I have to-day spoken with a farmer on this subject. He was rather in favor of large potatoes, but said he often used small ones, and for aught he could see, with as good results. He thought they might run out, as the seed was less perfect,—a point which we will consider presently. He mentioned a farmer noted for his potatoes, who cut his potatoes so as to put but six or seven bushels seed to the acre, and thought the crops better for it.

So far as I have seen, the argument for large seed seems rather theoretical than practical. There are certainly too few well conducted experiments to demonstrate the principle. We constantly hear men appeal to the imperfectness of the small seed. To this the rot has also been attributed.

If we recur to the native growth of the potato, we shall find the tubers very small, and this is the natural and healthy growth of the plant. Large potatoes are an artificial growth, and are certainly no less in an unnatural condition than the smaller ones on the same stem. If anything the smaller potatoes are more nearly a natural growth than the larger ones, and I can see no reason why these should not be planted rather than the larger ones by the sticklers for the "depreciation" theory.

It is urged when good crops are raised from small seed, that they would soon run out, if planted again. But who knows that? Are there any experiments to prove it? If not, let us discard *theory*, and determine the facts. S. P.

REMARKS.—We have experimented ourself and collected the opinions of a great many excellent farmers on this question, and a large majority of the opinions are in favor of small seed.

For the New England Farmer.

PLOWING.

MR. EDITOR:—From my boyhood up, I have heard that "faith" is essential to salvation, and no serious farmer doubts it. But very few seem to be aware how necessary faith is to good farming. It is only through *faith* that most of us avail ourselves of the teachings of modern science in regard to agriculture. Not one in a hundred of us can test the truth of the chemical doctrines laid down upon this subject. We are compelled to believe on trust. If some of "our order" have been too ready to believe, their disappointments and losses have arisen, not from their willingness to be directed, but from their failing to follow carefully the directions which they received. We must remember that chemical processes are generally very *nice* ones. A single step omitted, or a superfluous one taken, will sometimes spoil the whole experiment. It is just so, whether we undertake to make a compost-heap or a custard.

But to plowing. Farmers would perform this important part of their work to much greater profit, if they would only settle it in their own minds what plowing is for. From what I have seen, I should judge that some farmers regarded the process of plowing as being to the earth what currying is to the horse. They scratch the surface a little, and expect that the crop will be tickled into smiles.

With your leave, I will specify two important results produced by plowing; and, if my conjectures are right, your readers will perhaps be induced to "speed the plow" with new zeal. In the first place, one cause of sterility in our New England soil is the exhaustion of the *vegetable element* from the land by the removal of crops. *This must be replaced;* and how? We go into our meadows, and, at great expense, procure and prepare meadow-mud. But cannot we do this more easily? When we stir the earth, fermentation ensues, vegetation in its lowest forms begins, myriads of plants (cryptogamia) spring into life and become developed. We plow again; they perish, and upon their remains a higher order succeeds, and so on. Do you say this requires time? Not at all. Have you never seen those broad-brimmed toad-stools, big enough, if they were only beef-steaks, for an alderman's breakfast, which spring up in a single night? The Lord knows *whence* they come; but they *come*, and they serve to show how rapidly, under certain circumstances, vegetable material is produced in the earth. If plowing stimulates the earth to this kind of productiveness, is it not much cheaper to restore the vegetable element in this way, than in the common one of digging and hauling mud? I think so; and therefore feel that, by thorough and frequent plowing, I save more labor than I expend. My second point shall be discussed at some other time. AGRICOLA.

For the New England Farmer.

GUANO vs. BONES.

MR. EDITOR:—In No. 8 of your estimable issue is an article on guano, by Dr. Reynolds, in which he opens by saying—"That the failure of guano to produce the beneficial effects expected from it the past season, seems to have destroyed the faith of many farmers in its value as a fertilizer," and then says, "that his faith was still undiminished." In alluding to that article, I do not wish the Doctor or others to consider me biased by interest or prejudice, but impelled by a desire to benefit my neighbors, in whatever latitude I may reside. To me it is nothing new to hear the farmer complaining of guano, after the land has recovered from its state of intoxication, the result of a few dressings of guano and other chemical compounds; I should rather say *villanous;* for, if the Doctor was as well acquainted with the dealings of manure merchants as I am—*even though it be guano from the vessel's side*—it would have saved the labor of writing instructions for mixing with rich garden soil and other bodies.

The first view of guano, in my opinion, is erroneous; that a small quantity, a few spoonfuls to the hill, shall raise an unaccountable crop. Instances may be produced—exceptions, not rules. You may give your laborer alcohol; it will stimulate; you may give your cows distillers' wash and brewers' grains, but does the result justify your, in that case, foolish expectations? No, all must accord we had better feed our laborers and animals substantially and without stimulant. So with all nature, vegetable as well as animal; you cannot over-force; so far you can go and no farther; therefore you must turn to mechanical and manual, as well as chemical aids, to wrench from mother earth the utmost she will yield; the farmer must never forget that by the sweat of his brow he must earn his bread. If he thinks a few spoonfuls of a compound will do the work for him, he will certainly have more faith than farmers as a class generally have; they must give the earth something substantial to eat, something that will satisfy her wants; then the farmer will reap a continuous increase. Experience and observation convince me that until those requirements are met, no land will yield to the wishes of its owner or occupier. I have seen guano, superphosphates, poudrettes, &c., &c. applied in many districts with the same conclusions arrived at, that head this paper, and now sum them up as, one and all, a commercial speculation, kept up by puffs, interest and ignorance.

Did Doctor Reynolds, or any one else complain after dressing their land with ground bone? No. I have seen thousands of acres dressed with them, whose owners were rich, happy and able stalwart yeomen; talk to them of guano; "We have tried it, but we want no more of it;" and I defy any one to say that he regrets boning his land. There is something in it more than etherial, vaporish air. Sir, it is there for ten or twenty years if you want it; there is a satisfaction in the use of it, unknown in any other manure; it brings out a new root—it makes a bottom to work on, it produces that herbage necessary to yield milk—not to dry up the cow, as is now the case. The use of bones on the dairy farms of Massachusetts would double the yield of milk, instead of increasing it one quart per day. This is no theory.

I refer you to the cheese districts of England, to her eastern coast, and to the midland counties of that island. It is all folly to import fancy cattle on to the present herbage; no improved breed will flourish. The best milk in Cheshire, England, I have seen produced on a boned farm, from small Welsh or native cattle; to have seen the difference was astonishing; and I at once say, if farming must pay the farmer must bone; then he is out of harm's way but not till then. Now, Mr. Editor, as it is asserted that eleven million of dollars' worth of guano have to be landed in the States in 1855, which to me appears worse than worthless, cannot something be done to awaken people to a sense of their own interests? There are made on an average in the States, 250,000 tons of bones; some find their way to England, Scotland, &c., where the farmers know how to estimate them; and the people of these States pay for imported fertilizers which will not compare with *fine, pure ground bone only.* If I were Doctor Franklin, I should be inclined to be satirical at the expense of the State Agricultural Society. It is a curious paradox to see Boston serving Virginia with ground bone and buying guano for her own farmers, especially when the advantage has over and over again been demonstrated. Should these remarks cause the Doctor or any one else to test the difference; bone—*versus anything else,*—this time next year I am confident they will be converts to the opinion of

Yours respectfully
Roxbury, Mass., 1855. HENRY KENYON.

For the New England Farmer.

TOADS—CHEESE—STRAWBERRIES.

MR BROWN:—I send you a few items upon different subjects, which you are at liberty to publish, or not, as you think best.

TOADS, AND POTATO ROT—A SUBJECT FOR NATURALISTS.

The toad having become quite a favorite of mine, partly on account of its bright eyes, but more on account of its usefulness to mankind, I have therefore noticed, with regret, that they have greatly diminished in numbers, for the last ten or twelve years, in New Haven and vicinity; indeed, they seemed to be almost exterminated. A few days ago, I was conversing with an intelligent farmer upon the subject, He said that at or near the time the potato rot made its appearance, the toads disappeared; that last year, potatoes were not affected by the rot, and toads were more numerous; and he infers from that circumstance, that both may yet be restored to their former position. Upon inquiry, I find that others have observed the same facts. Now, the questions are, has it been so generally? And what relation do they bear to each other? To me, the only idea suggested, is, that the potato rot may be occasioned by an insect, and *that insect is* poisonous, in the stomach of a toad.

CHEESE-MAKING.

A few months ago, I visited a lady friend in the country; her table was continually supplied with most delicious cheese, of her own making. I asked, as a particular favor, that she would communicate to me her peculiar method of making it, and wherein she differed from others. She replied that she followed the method she had been taught generally, prepared the rennet in the same way, but felt sure that she had discovered the reason why cheeses were strong, both to the taste and smell, which consists in the single circumstance of putting the curd to press, *warm*. She did not use any artificial means to cool the curd, but after it had been chopped and scalded, allowed it to remain spread upon the cloth until it was as cool as the surrounding atmosphere, and thus put it to press.

There is a great deal of probability in the above statement, for I have frequently noticed that some cheeses from the same dairy would be strong and offensive, and others mild and agreeable, which may be owing to the circumstance of the dairy-woman getting her cheeses to press early some days, and being hindered others, until the curd had time to cool. It may be well for dairy-women to try the experiment so as to ascertain the fact.

ON THE CULTIVATION OF STRAWBERRIES.

Much has been said, and written, on the culture of strawberries, and yet, *all* has not been said, so I contribute my mite, which is on the proper substance for renovating the soil. Some fifteen years ago, my late husband was cultivating strawberries to a considerable extent: one season, the fruit on a favorate bed was small and of inferior quality, evidently occasioned by exhaustion of soil, and the bed was marked, to be broken up the following spring; but when spring came, the plants came up finely, and the bed being pretty free from weeds, it seemed a pity to destroy it. So he looked about for some suitable substance for renovation, but not having any properly prepared compost, from principles of neatness he applied a light top-dressing of wood ashes. Much to our surprise, the fruit from that bed was larger and better flavored than any in the garden. It was his custom, whenever he discovered *effect*, to seek for the *cause*, and he came to the conclusion that *ashes* was one natural substance to stimulate the growth of strawberries. Every farmer must have observed, with what facility the wild strawberry takes possession of his fallowed grounds. It is not my intention to set everybody to covering their strawberry beds with ashes indiscriminately, for there is such a thing as an over-dose, as we found, by sad experience. For one season afterwards, a fine bed ran most extravagantly to vines, a very few berries set, and those few grew enormously large, but, for three following years, it bore remarkably well, with comparatively little attention. The best mode of preparing the soil for receiving the plants, is to manure a piece of grass ground well, with stable manure, plow it up, and cultivate it in corn, giving the corn a liberal supply of ashes during the season. The spring following, it will be in fine condition for strawberries; from the middle of April, to the first of May, is the best season for setting the plants here. With ground thus prepared, and with good cultivation, and an occasional *light* top-dressing of fine compost and wood ashes, beds may be kept in good bearing from 4 to 6 years. The best general method for cultivating on a large scale that I know of, is to follow the principles recommended in Cole's Fruit Book, except that we could never make the cultivator work to advantage in clearing the beds. Hoes, knives, rakes and human hands have been our only implements. It must be remembered that the soil of New Haven, is a light sandy loam.

Respectfully, MRS. N. DARLING.

New Haven, Ct., May, 1855.

LADIES' DEPARTMENT.

DOMESTIC RECIPES.

INDIAN MUFFINS.—A pint and a half of yellow Indian meal sifted. A handful of wheat flour. A quarter of a pound of fresh butter. A quart of milk. Four eggs. A very small teaspoonful of salt. Put the milk into a saucepan. Cut the butter into it. Set it over the fire, and warm it until the butter is very soft, but not until it melts. Then take it off, stir it well till all is mixed, and set away to cool. Beat four eggs very light; and when the milk is cold, stir them into it alternately with the meal, a little at a time of each. Add the salt. Beat the whole very hard after it is all mixed. Then butter some muffin-rings on the inside. Set them in a hot oven, or on a heated griddle; pour some of the batter into each; and bake the muffins well. Send them hot to the table, continuing to bake while a fresh supply is wanted. Pull them open with your fingers, and eat them with butter, to which you may add molasses or honey.—*Farm Journal.*

BEST BREAD.—The best bread is that made of *unbolted wheat flour*. In some cases a small portion of white bread may be desirable, but the brown, after a short time, will be found more palatable, and conducive to a more regular and healthy condition of the system. It has been ascertained that even dogs cannot live over fifty days fed upon fine flour bread and water; when fed upon such as contained the whole or a large portion of the bran, they are found in no respect to suffer.—*Water-Cure Journal.*

TO MAKE A CORN CAKE WORTH EATING.—Take the whites of eight eggs; one-fourth pound each of corn starch, flour and butter; half a pound of sugar; one teaspoonful of cream of tartar; half teaspoonful of soda. Flavor with almond, or to suit the taste.

SPOTTED DICK.—Put three-quarters of a pound of flour into a basin, half a pound of beef-suet, half ditto of currants, two ounces of sugar, a little cinnamon, mix with two eggs and two gills of milk; boil in either mould or cloth for one hour and a-half; serve with melted butter, and a little sugar over.

NICE PANCAKES FOR SUPPER.—These are made of eggs, flour, and milk. The just proportions are one table spoonful of flour to each egg. To make small pancakes, beat a couple of eggs thoroughly, and add sweet milk. Then take a couple of table spoonfuls of flour, work into a thin paste and ductile batter by adding the milk and eggs, and a little salt. Grease the pan with a piece of sweet lard or butter, and stir briskly to prevent adhering to the bottom. When the under side is sufficiently browned, turn it. Leave the cakes folded, with sugar or honey and butter between the folds, or sugar alone. If this is found to be too solid, add more eggs, and use less flour. A slight sprinkle of grated nutmeg will be an addition.

BOYS' DEPARTMENT.

NOAH WEBSTER.

Every American boy and girl is, of course, acquainted with the name of Noah Webster. His spelling-book has made his name famous in every school-house from Maine to California, and his dictionary has given him a fame as widely spread as the English language. I think therefore that my readers would like to know a little about his history.

Noah Webster was a Connecticut boy. He was born in Hartford, on the 16th of October, 1758. His father was a farmer, and descended from one of the first settlers of Hartford. His mother, too, came from a good family, her ancestor was William Bradford, second governor of the colony of Plymouth.

Thus, you see, young Noah had good blood in his veins. But that did not, of itself, make him what he afterwards became. Some boys are proud of having great or wise ancestors, they do nothing to make themselves great or good. They expect to grow in consequence without effort. In such cases, however, in spite of all their good blood and noble ancestry, they usually grow up to be either very little, or very bad men, or both.

Noah had too much good sense to neglect his own improvement. When he was fourteen years old, he began to study Greek and Latin with a right good will. Two years afterwards, he entered Yale College. While there, the war of the Revolution began, and young Webster shouldered a musket for a short time. But he soon quitted the field and renewed his studies; at the expiration of his four years' course of study, he graduated with credit both to himself and to his teachers.

But the war made the times hard and difficult. Almost every one was tried in his affairs, and Mr. Webster's father among the rest. Unable to afford his son any further aid, the old gentleman gave him an eight dollar bill, worth only about *four dollars* in silver, and told him he must provide for himself.

This was a small fortune, and if young Noah's future had depended upon it, he would have been poor indeed. But his real fortune was in himself, as it is in every other boy. He had a will to work, and energy to overcome difficulties. It was his wish to study law, but not having money enough to obtain regular instruction, he began to teach school, and to study law without aid from others. So well did he succeed in doing this, that he was admitted to the bar two years afterwards. Let boys remember this fact, and learn that where there is a will to acquire knowledge there is always a way.

But his trials were not over yet. He was a lawyer, to be sure, but the war of the Revolution was just over, and times were very unsettled. There was very little work for lawyers to do. Still Mr. Webster was determined to do something. He taught a classical school in the State of New York. Here he saw the need of good elementary school-books. There were none in the country that suited his ideal, and he set himself, like a true genius, to the task of compiling them.

The year after, he published his spelling-book, grammar, and reading lessons. So popular did his spelling-book become, that thirty millions of copies have been published, and it is still selling at the rate of a million a year. The profits on this work supported him while he compiled the great work of his life—his celebrated dictionary.

We cannot follow Mr. Webster in his career as publisher and writer, because it would not interest you. I will only state a few facts to show you how he made his dictionary. He probably conceived the plan while at work on his spelling-book, but he did not give himself wholly to its production until he was forty-nine years of age. Then he devoted himself to it in earnest, and toiled at it incessantly for twenty years. In order to render it the more perfect, he visited England and France, examined the great public libraries, and conversed with the learned men of those countries. Having at last completed it, at the close of the year 1828, he published the first edition of twenty-five hundred copies. In 1840, having improved it considerably, he published three thousand more.

The construction of this dictionary was a gigantic task. What patience, zeal and perseverance Mr. Webster must have possessed, to keep himself so steadily at work upon one object for twenty years! Only consider that he had to define the meaning of nearly eighty thousand words! But he never knew discouragement. Little by little he pushed it forward, and thus lived to see his work completed and published. If my reader intends to accomplish anything great, he must learn like him to toil slowly and patiently along, persevering in defiance of obstacles. I advise every boy who reads papers, to save his money until he is able to purchase a copy of Webster's unabridged. By studying it he will get much wisdom. By viewing it as a monument of the industry and perseverance of its author, he will be stimulated to strive after similar qualities.

I am very glad to inform you that Mr. Webster was a pious man. He loved God, believed on Christ as his Saviour, and lived many years a life of prayer. Hence, when called upon to die, he was not afraid. "I know in whom I have believed," said he, as he lay upon his death-bed, "and that he is able to keep that which I have committed to him." With these words he fell asleep in Jesus, on the 28th of May, 1843, in the eighty-fifth year of his age. He left a widow and seven children.

Noah Webster was tall and slender in his person. He walked very erect, and his step was light and elastic. I hope every boy and girl of my readers will live as usefully and die as peacefully as did Noah Webster.

NEW ENGLAND FARMER.

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Feb. 1855. ly.

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MANUFACTORY AT WORCESTER.

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THE
NEW ENGLAND FARMER:

A MONTHLY

AGRICULTURAL JOURNAL,

FOR THE FARM AND GARDEN.

SIMON BROWN, EDITOR.

FREDERIC HOLBROOK, OF VERMONT, HENRY F. FRENCH, OF NEW HAMPSHIRE,
ASSOCIATE EDITORS.

Without encouragement of AGRICULTURE, and thereby increasing the number of its people, any country, however blessed by nature, must continue poor.—SWIFT.

VOL. VII. JULY, 1855. NO. 7.

BOSTON:
JOEL NOURSE, PUBLISHER,
QUINCY HALL.

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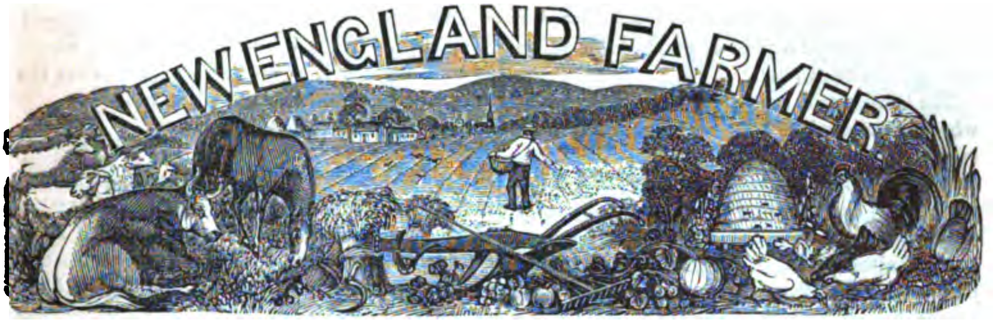
Postage.—The Postage on the Monthly Farmer to Subscribers, is now twelve cents a year, to be paid quarterly or yearly, in advance, at the office where it is received.



DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

VOL. VII. BOSTON, JULY, 1855. NO. 7.

JOEL NOURSE, PROPRIETOR,
OFFICE....QUINCY HALL.

SIMON BROWN, EDITOR.

FRED'K HOLBROOK, } ASSOCIATE
HENRY F. FRENCH, } EDITORS.

CALENDAR FOR JULY.

JULY, the month of Summer's prime,
Again resumes his busy time;
Scythes tinkle in each grassy dell,
Where solitude was wont to dwell:

* * * * * * *

The very insects on the ground,
So nimbly bustle all around,
Among the grass or dusty soil,
They seem partakers in the toil.
JOHN CLARE.

JULY is an exceedingly important month to the farmer in several respects. It calls again for all his force and skill to secure his hay crop, the great New England harvest, perhaps not second in importance to any other. It is the month, too, upon which another valuable crop in good measure depends,—the golden maize, or Indian corn. This plant requires the frequent hoe, and the fervid suns of July. Indeed, all the crops which the farmer has committed to the earth with so much pains, and which have sprung into healthy and promising plants, now require his constant care to protect them from insects and weeds, and keep the soil in a favorable condition to receive the rains and dews and atmospheric influences.

Summer has now fully come, and her "whole world of wealth" is spread out before us in prodigal array. The woods and groves have darkened and thickened into one impervious mass of sober uniform green, and having ceased, to exercise the more active functions of the Spring, are resting from their labors, which *we* know so little how to enjoy. In Winter, the Trees may be supposed to sleep in a state of insensible inactivity, and in Spring to be laboring with the flood of new life that is pressing through their veins, and forcing them to perform the offices attached to their existence. But in Summer, having reached the middle term of their life, they pause in their appointed course, and then, if ever, *taste* the nourishment they take in, and "enjoy the air they breathe."

Like the Woods and Groves, "the Hills and Plains have now put off the bright green livery of Spring; but, unlike them, they have changed it for one dyed in almost as many colors as a harlequin's coat. The Rye is becoming yellow and ripe for the sickle. The Wheat and Barley are of a dull green, from their swelling ears being alone visible, as they bow before every breeze that blows over them." The stiff and stately herds-grass, or as it is called in Europe, the meadow cat's-tail, sways awkwardly to and fro, while the graceful and silk-like red-top yields pliantly to every breeze, and the American cock's-foot, or orchard-grass, with the sweet-scented vernal, meadow foxtail, rye, and other grasses, all mingling their varied colors, and presenting them as they sway in the breeze, afford a most lively and beautiful scene. The late Buttercup, Ox-Eye, Daisy and Red Clover blossoms are still in their prime, and give a charming appearance to the whole. But nothing can be more rich and beautiful at this season than a great patch of purple Clover, lying apparently motionless on a sunny upland, encompassed by a whole sea of other grasses, waving and shifting about it at every breath that blows.

Now a great many things are intensely July-like. Cattle chew their cuds and lash their punctured sides, standing knee-deep in water; fishes fry in shallow ponds; pedestrians along dusty roads quarrel with their coats, and cut sticks to carry them across their shoulders, while everything seen beyond a piece of parched soil quivers through the heated air.

The Garden still has its beauties—as it ever has where it has received a considerate care,—but we cannot stop to particularize them now. The solemn woods are now inviting, where the Whetsaw, the Brown Thrasher and Cherry-wink, make them vocal with their peculiar notes. Boys read Izaak Walton with a new relish, and explore the brooks that take their courses through the meadows or dim woods, and throw the careful bait to the speechless trout in the dark water by the bank, or under some ancient and massive root. Silently as the panther approaches his prey, they move along—now stepping upon a bunch of moss, or a tuft of grass, for the trout's ear is as quick to note a footfall on the walls of his castle as an Indian's, put to the ground.

The *Haying*, the *Harvesting*, the *Weeding*, the care of *Stock*, and the thousand nameless things that press upon the farmer in July, leave him but little time for visiting or study; but there *are* hours for good-nature and pleasant social intercourse with one's own family and the neighbors, and, if rightly improved, will produce a crop as valuable as the crops of the fields.

The Hoeing.—This important operation must not be neglected. The lodging grass, early in July, is a strong temptation to take the scythe in hand instead of the hoe—and it may be well to do so for short periods; but no man of ordinary means can afford to neglect his hoeing; it has cost him too much labor of himself and team, and too much for seed, to omit the cultivation of a crop that needs it. If he allows weeds to crowd and rot his plants, or a hard and repulsive surface to return to the skies unappropriated, the fructifying dews which Heaven has in kindness sent, he will not reap abundantly where he has sown. It is among the first errors of the farmer, not to tend thoroughly the crops he has put in.

Haying.—Grass cut in the morning, spread immediately, turned at noon, and cocked before the dew falls, will rarely need, in good weather, more than a mere opening of the cocks the second day. A load of fence rails would be about as acceptable to a well-fed cow, as much of the herdsgrass that is carried to the barn. It is spread in the intense sun, and exposed to the wind till it is brittle, juiceless and harsh as wire. In our opinion, twice as much hay is spoiled by over-drying, as there is by not being dried enough.

Clover hay should be cut in the morning, lay in swath until four o'clock, then turned upside down. The next afternoon gather it with a three-tined fork into cocks, and let it remain two nights more, when it will be sweet, the leaves all remaining on the stems, and the whole will be eaten by the cattle and prove highly nutritious.

Turnips.—In the course of the month, whenever the surface is sufficiently moist to start the seed, sow turnips. The old adage runs—

> "The 25th of July, sow turnips,
> Wet or dry"

But we have found that a moist condition of the surface had more effect in inducing germination of the seed than the day of the month. After considerable experience and a pretty extended observation, we are still of the opinion that the root crops may be cultivated by most farmers with a decided profit. The great cost has been in keeping down the weeds—otherwise they are not difficult crops to manage. They are easily got in, and may be cultivated with a horse or the wheel-hoe, without any difficulty. Would it not be a good plan to use the same piece of land for a succession of years for these crops, never allowing a weed of any kind to go to seed upon it, and enriching it with manure as free from seeds as it is possible to get it? If such manure is *plentifully applied in the fall*, and plowed under 10 or 12 inches, there will be no complaint that the root will not flourish on the same soil. Where the weeds do not come, carrots, beets, parsnips or turnips may be profitably cultivated.

For the New England Farmer.

DOUBLE PLOW.

Dear Brown:—I have to-day tried the sod-and-subsoil or double plow on the old homestead at Chester, and as this is the first experiment I have witnessed with this implement, in that good old town, I hasten "to make a note of it."

The land was sward, full of witchgrass, and stony underneath, as all the land here is, although it has been plowed a hundred years or so, and the boys have "picked rocks" on it annually. The plowman doubted whether his three yoke of small cattle could "put through" so large a plow, in such land, but he succeeded in finishing his stint of above an acre before night.

Several judicious neighbors looked on, and our unanimous conclusion was that no other plow could run with the same team to that depth—ten inches full,—and that no other plow with any team could do the work so well. The plow is Ruggles, Nourse, Mason & Co.'s largest size, No. 35½.

The double plow is the thing for the hard and stony land of Rockingham County, not in new land, but in the common old fields. We believe that no more team is required to draw it than the single plow, and nothing can put the witchgrass out of sight, like it.

Yours, H. F. French.

Chester, N. H., May 19, 1855.

Coal Ashes for Peach Trees.—Will those who have not otherwise disposed of their coal ashes, place a half bushel around each of their peach trees, in the form of a little mound, and let it remain through the summer, as the best manure for the trees, and as a remedy for the borers. In the fall dig it into the ground.

For the New England Farmer.

HIGH PRICES, &c.

MR. BROWN:—A leading article in your paper of April 14, on high prices, &c., has caused some reflections as to the cause of such prices as we now have and live under. That the prices are high, I admit—in most cases, higher than they should be. But I have seen and lived through high prices before; in 1836 and 7, grain, flour, pork, &c., were as high as they are now; though, taking the round of agricultural produce as a whole, it did not range as high then as now. But then it is, or may be asked, what is the cause of such prices? And, of course, the war in Europe will be named as one thing, emigration for another, speculation for another, and so on. Now, for one, I do not put so much stress on the "war question" to make high prices as many will, though it may affect us some, indirectly, on grain and flour. During our late war with Mexico, which was in operation from 1846 to 1848, I think it did not affect our prices of agricultural produce materially any way, though we were a party and directly interested in that war as a nation; and yet it had the effect to draw away a large number of our population from farming and the productive arts.

But what I consider to be one of the great causes of the present prices is, the constant drain of productive labor from all parts of the country, during the last six years, or since California opened in search of gold. Of course we have had less producers and more consumers in shape of emigration, which emigrants do not produce much in the first six months, but after that they can make producers as well as consumers. Well, the consequence of California may be said that we have had less produce and productions and more gold, which is true to a certain extent, though I am not aware that many are overburdened with that "article" at present. But I am not one of those who believe that a large influx of gold and silver into a country will, as a consequence, make high prices directly. Yet it might have the effect to stimulate all kinds of business, and so produce may rise in consequence. But you say, in substance, "that an influx of gold, like an inflation of the paper currency, adds nothing to the real value of property.[*] Its effect is merely to make money less valuable, so that none of it is given for articles of real value, as the products of the earth and of the arts." Now I do not see it just in that light. It may be true that a large amount of gold laid down on a worn-out soil, will not improve that soil directly; neither can it produce improved scientific labor, if that labor is not to be found. Still, it can be made to produce the best labor at hand, and in that way the soil can be renovated, and soon the productions on the soil will be worth as much, and more, than the original gold laid out. For instance: thirty years ago (or in 1825 say,) corn could be bought for fifty cents a bushel, and now it is worth a dollar a bushel, (in 1855.) Now, suppose that all agricultural productions could be had at the same ratio at that time, then, of course, so far as a man's living was concerned, fifty cents then was worth as much as a dollar is now. But was fifty cents in silver then worth as much as a dollar in silver is now? Of course not, and why? Because money, that is, "gold and silver," must always hold its relative value when measured by itself. In fact, it is the focus or standard where all real property terminates, and, of course, its value is fixed. So, in reality, I claim that you cannot make money any the less valuable at one time than another, though you may have to give more gold for productions at one time than another. But, then, "Wall Street and State Street" talk about money as being cheap and dear—that is, now they have to pay two per cent. a month, where they used to get it for one per cent., &c. Of course, this means that their business compels them to pay two per cent.; but, in reality, the money is worth no more than when they pay only half per cent.

Another and great reason of the present high prices, I consider, is in the constant drain of gold and silver (since California has opened) to Europe, to pay for imported goods, manufactures, arts, &c., which, in the main, we could just as well make at home. Now, suppose a railroad is to be built through your town, and five thousand dollars worth of railroad iron is wanted to carry the road through your place. Which is the better policy, to raise five thousand dollars and send to England and buy the iron, or have the rails at your own price, and made by your own workmen at home? In the latter case, the five thousand (in California gold) is paid out to workmen in your own town. A gets a part, C a part, and B a part. It is all there among you; what one has not got, another has. But in the former case, it goes out of the country, and it is a matter of chance whether any part ever gets back again. But the policy of the government appears to be to have the balance of trade against us all the while, so that the United States appears to be the "half-way house," where the California gold stops over night; next day it takes the steamer, goes to Europe, and that is the last seen of it. Now, as it appears that we have got to have a large share of European emigration now and for all time to come, would it not be a good plan to save all the productive labor we can, and so keep the gold here in the country to produce and reproduce and pay its own way.

But then, again, as to high prices of produce now and in former years. During the hard winter of 1835 and 6, in the spring of that year, hay was worth twenty-five dollars a ton in all this section, and hard to be got at that. Since that time, it has several times been up to twenty dollars the ton; at this season of the year and now it is worth from sixteen to seventeen dollars the ton. But to show that they had high prices formerly as well as now, I will copy a list of producer's prices from your paper, taken from the *Portsmouth Journal*. This was the price current for February, 1817, or thirty-eight years ago, and these are wholesale prices; of course the retail were higher. "Bacon 15 cents per pound; barley, $1,25 to $1,50 per bushel; beans, $4 to $4,50 per bushel; butter, shipping No. 1, 24, No. 2, 22 cents per pound; corn, $1,90 to $2,10 cents per bushel; coffee, 14 to 21 cents per pound; Virginia coal from $9 to $15 per ton; flour, $14 to $15 per barrel; hay, $21 to $24 per ton; molasses, 48 to 54 cents per gallon; peas, $2,50 to $3 per bushel; rice, 7 cents per pound; rye, $1,75 to $3 per bushel; sugar, loaf 23 to 25 cents per pound, brown 11 to 15 per pound; teas, hyson $1,70, hyson-skin $1, souchong 68 to 75 cents per pound."

---

[*] An inflation of the paper currency means, of course, an amassing of paper money, say four or five dollars of paper to one of gold and silver. But, then, as the paper currency is only the representative of money, the true standard of property comes down to the actual amount of coin in existence and circulation. If this be so, then gold and silver, or coin, cannot "inflate" the currency, be there ever so much of it, because it is the real standard of property itself. So we understand it.

In this list of prices, I do not see any thing that comes near it now except butter, which is probably about the same now as then, at retail—28 to 30 cents a pound. I have heard tell that during the war of 1812, for two years molasses was two dollars a gallon, and most other groceries in proportion. This was owing more to the fact that all our seaports at that time were blockaded, and, as these articles were mostly of foreign production, they could not be obtained scarcely at any price. But this list of prices named above, was some three years after peace was declared, so the country had got pretty much over the war question by that time. But then, with these high prices thirty-eight years ago and the present high prices, are the laboring people better off now than then? Of course they are, and why? Because they can earn three dollars as easy now as they could two then. Probably there is two dollars in circulation now, throughout the country, where there was one then, or in that ratio. But then, again, we have three times the population to support now that we had then, taking emigration and all. Most of this, however, is productive labor in good times; but in hard times, like the present, much of it lies idle for want of employment. But, then, what is the remedy? For hard times and high prices, like the present, it will probably be a difficult matter to answer. One thing is certain; more agricultural productions must be raised, and, of course, more men must turn their attention to cultivating the soil. But will they do it?

And another thing is, farmers must lay out more capital on their lands; they must both learn to farm more and farm better; the present prices of farm produce will justify a liberal outlay in manures, in labor, skill, &c. Still, my experience has led me to see that, with the body of farmers generally, they were no more ready to lay out capital in farming when corn was a dollar and a quarter a bushel, than when it only brings but fifty or seventy-five cents. What appears to be wanting most among farmers, is a generel appreciation of the business as an employment; and when this can be fairly understood, no lack of enterprise will be wanting on the part of farmers to make farm improvements, and raise all the produce they can.

A grumbling writer in the *New York Tribune*, a few days ago, on the high prices of grain, says, in substance, that the lowest prices of corn that he can find in the corn districts or the "prairies," is forty-five cents, and from that up to seventy-five cents a bushel, while flour is from ten to twelve and thirteen dollars and a half a barrel for the best in New York. Very well. A letter in your last paper, from Mr. Daniel Fay, dated Oskalooza, Iowa, March 20, says, "corn here is worth twenty-five cents a bushel, wheat from sixty to seventy-five cents a bushel, and pork from two to three cents a pound." He further says, that when "they get a railroad from Mississippi river, after the 'hard times' are over, (very well put in,) their produce will be worth more." Also, "the city of Oskalooza is only twelve years old, and yet they have 2500 inhabitants, with merchants, stores, &c., furnishing every thing for comfort that is wanted." This writer in the *Tribune* further says, that "there is not one old dingy field in Connecticut but that can be made to produce wheat with more profit than at the west. The ground is here to hold the seed, and that is all that is wanted, for 'science' points out the proper ingredients to apply to make the grain, and any dollar so expended will pay back fifty per cent. a year," &c. Now this is all fine talk for outsiders, but, in plain English, there is no truth, in reality, in one-half of the ideas, but a mere ranting exaggeration of the subject. But we recognize in this grumbling writer in the *Tribune* one who, a few years ago, was on a prairie farm at the west. But why did he not stay on the farm and raise grain, and help make "cheap bread," instead of leaving and coming to the city, to live in some six by eight "dog hole," and join in the general hue and cry about starvation of the poor, high prices, nothing to eat, &c. Consistency has, in former times, been called a "jewel," and I think there is something in it; but it is a principle which we generally adopt last.

L. DURAND.

Derby, Conn.

THE EARTH THAT WE WALK ON.

It may surprise some readers to learn that all the earths—clay, flint, chalk, &c., are nothing more than the rust of metals; that at one time, during the age of this world, they were all shining, brilliant metals. Geologists speak of the earth as being hundreds of thousands of years old. All their philosophy is based upon mechanical science: the formation of strata, the upheaving of mountains, the burying of forests, have been attributed to some "great convulsion"—that is, to some shaking together of the earth's crust. Whether this great age of the world be true or not, it is very certain that before any of these events could have taken place, the formation of each of the earths must have been the work of ages; otherwise the metals, of which their base consists, could not have been so completely rusted as to assume an earthy texture. To understand this, we must leave the mechanical, that is, the geological theory, and enter upon the primary or chemical theory. It cannot be disputed that the first changes of the earth's surface were of purely a chemical nature. Combinations took place then as now; the metallic bases, by mere contact with the atmosphere or water, passed into oxyds, as the chemist calls them, or earths, as expressed in daily conversation. Chemists thus recognize something like forty different kinds of these oxyds or earthy bodies, some being very scarce, and others as plentiful. By the merest touch of air, some of the metallic bases of these earths instantly pass into the rusty or earthy state; some, by contact with water, are so energetic that they burst into flame.

By this process of reasoning, we come to the conclusion that the world is one mass or globe of mixed metals, of which the mere crust has become rusted, or of earthy form; the outer rind, as it were, preventing any rapid combination taking place with the metallic surface, five or six miles below the face of the dry land. Eruptions from volcanoes are probably produced by the sea getting down to the metallic surface, through some some fissure in the earth's crust; decomposition of the water then takes place—fire, flame and steam causing an eruption. It would be an instructive lesson to man to quarry into the earth's crust to the depth of ten or twelve miles.—*Scientific American.*

For the New England Farmer.

SHAPE AND CONSTRUCTION OF CHURNS.

If I am correct in what I here say, this is a subject of vast importance. I am a plain farmer, and keep a few good cows, and have the vanity to believe my wife makes as good butter as any woman; I have my house (which is small) well filled with patent churns and patent humbugs, some of one shape, and some another. Some years ago, I became satisfied the cylinder was the only proper shape for a churn. In all square and oblong box churns, a large amount of cream must stick, and can only be churned by scraping it down. Now, does this cream put down at different times, all come to butter? If not, there is a loss; but this is not the worst of all; it leaves a portion of half-churned cream, which is mixed with the butter in small particles, from which the buttermilk cannot be extracted, hence the butter soon spoils. I am satisfied more butter is spoiled by uneven churning than by all other causes.

I am aware when I speak of box or square churns, as losing five or ten per cent. of butter, some will disbelieve me. But an honest trial will convince unprejudiced dairy-men of the fact. I saw something like this in a handbill put out by Hall & Holmes, the proprietors of Fyler's Butter Working Churn. I was disposed to disbelieve. But about one year ago I was induced to purchase one of the above churns, and I find it proves all it was recommended, and will make full ten per cent. more butter than the square-shaped churns in use; and the reason is, it stirs all the cream alike, there is no putting down of the cream. As the dasher fills the cylinder, and plays astride of breakers, so there is a constant reaction; and what is more, this churn will work butter and mix the salt better than anything I ever saw. I feel bound to say this, because it is no humbug, but will perform all the proprietors claim for it. And I feel the more willing to speak out, as it is almost time to make butter, and I can recommend this churn above all others.

For Pickling Walnuts.—The walnuts should be gathered between the first and the middle of June. Put them into a strong brine and let them stand ten or twelve days. Then soak them for two or three days in weak vinegar. Then scrape them well, and to every peck of walnuts add an ounce of cloves, and half an ounce of whole black pepper. Put them into a small-mouthed jar and cover with strong vinegar. They will be fit for use in about four weeks. They are a very nice pickle, and will repay the labor of making.

HIDDEN LIGHT.

I much mistrust the voice
That says all hearts are cold,
That mere self-interest reigns,
And all is bought and sold.

I much mistrust the man
Who will not strive to find
Some latent virtue in
The soul of all mankind.

Yes! if you say the fount
Is sealed and dry, I know
It needs a wiser hand
To make the waters flow.

If you would still appeal
To evil life in all,
I know a demon band
Will answer to your call.

But when the Lord was gone,
The Lord who came to save,
Two angels, fair and bright,
Sat watching by the grave.

And from that blessed hour,
With an immortal mein,
In every tomb of Good
Some angel sits unseen.

The spell to bring it forth?
With lowly, gentle mind,
With patient love and trust,
Go seek—and ye shall find.

Household Words.

For the New England Farmer.

TURNIPS FOR PIGS.

Mr. Editor:—In your paper of the 20th January, I find an article with the above heading. Our friend from "Down East," Bethel, Me., makes the interesting inquiry, whether any of your correspondents have had any experience in feeding swine on turnips?

I have, for several years past, kept several swine, though not to such an extent as some of your Middlesex breeders. Mr. Haven, of South Framingham, of whom I purchased a Suffolk pig last winter, had about 120, of all sizes, sexes and ages; and his feed at that season was principally beef scraps, boiled in water, with some rice or corn meal, which I thought more economical than any feed we had ever found in our vicinity.

I have produced, for several years past, some two or three hundred bushels annually of the Swedish, or, as we call them here, the sweet turnip, which I think the best root I can grow (compared with the expense of raising,) for any stock, including swine.

I usually keep two or three breeding sows, that produce a litter each in a season; and I commence feeding them in November or December on raw turnips, chopped, night and morning, till they litter, which is usually from the first of March to the first of April; they will eat them as readily as corn, while if, by chance, a ruta-baga should be among them, it would be rejected. I think the flat turnip of little value for swine; the ruta-baga, though similar to the Swedish, is far superior for the table; and, as I have never had a hog that refused the Swedish after two or three feedings, I think they are *the* turnips, and much cheaper than any other feed for winter and spring. No meal is needed until the sows litter and nurse. The expense of cooking is saved, for they prefer them raw, unless meal is added. For fattening pork, for rearing young shoats and for nursing sows, where meal is required, they are, I think, fifty per cent. cheaper than any root we can raise at this time, to cook, with which to feed meal. JOSEPH RAYMOND.

Hubbardston, Jan. 22, 1855.

For the New England Farmer.

GROUND NUTS—SOFT SOAP.

MR. BROWN:—Your correspondent, "G. F. N." asks, if the "Ground Nut, or Indian Potato," cannot be cultivated to "make it a valuable root." I answer yes, presuming it to be the artichoke—known in boyhood's days as the "ground nut." No vegetable is more valuable for pickles, whether a "child of nature" or one of highly-cultivated taste. Cucumbers, peppers, tomatoes, melons, onions, &c. fall into insignificance compared with the artichoke as a delicious, crumpy pickle. It never grows soft; a lady at my side says, "I wish I had a bushel of them this minute."

Dig them, wash them clean and put them into vinegar (and spices if you want good pickles of any kind;) no salt pickle or scalding is required as with the usual vegetable pickles.

To make Soft Soap.—18 pounds of potash to 18 pounds of clarified grease makes a barrel of soap; pour in cold water and stir. Potash is cheap. There was a tradition among our ancient matrons, that May was the lucky month for "soap to come." This new practice, without regard to time, dispenses with the ley-leach, hot fires and various vexatious troubles, and every family can make soap that makes *grease.* H. P.

THE USE OF LEAVES.

The office and utility of leaves are becoming better understood by cultivators than formerly; yet we find a good many still adhering to the old belief that the sun's rays, directly shining on forming fruit, are what perfect it independently of other influences.

On this subject, theory and practice have been invariably found in perfect accordance with each other. The principles of physiology teach us that the sap of a tree, when it passes in at the roots, remains nearly unchanged in its upward progress through stem and branches, until it reaches the leaves, where, being spread out in those thin organs, to light and air, it undergoes a complete change, and thus becomes suited to the formation of new wood and new fruit. Strip a rapidly growing tree of its leaves at midsummer, and from that moment the supply of new wood ceases, and it will grow no more till new leaves are formed; and if it have young fruit, the growth and maturity of the latter will cease in the same way. A few years since, a Yellow Gage plum tree lost all its foliage from leaf-blight, when the plums were not fully grown, and while yet destitute of flavor. The fruit remained stationary and unaltered, until, in a few weeks, a second crop of leaves came out. They then swelled to full size, received their crimson dots, and assumed their honied sweetness flavor.

The object of pruning should be, therefore, to allow the leaves to grow to full size without being injured from crowding.—*Anon.*

AFRICANS NO ARITHMETICIANS.

Mr. Gavett, a traveller in South Africa, says: "We had to trust to the Damara guides, whose ideas of time and distance were most provokingly indistinct; besides this, they have no comparison in their language, so that you cannot say to them 'Which is the longer of the two, the next stage or the last one?' but you must say, 'The last stage is little; the next, is it great?' The reply is not, it is a 'little longer,' 'much longer,' or 'very much longer;' but simply, 'It is so,' or 'it is not so.' They have a very poor notion of time. If you say, 'Suppose we start at sunrise, where will the sun be when we arrive?' they make the wildest points in the sky, though they are something of astronomers, and give names to several stars. They have no way of distinguishing days, but reckon by the rainy season, the dry season, or the pig-nut season. When inquiries are made about how many days' journey off a place may be, their ignorance of all numerical ideas is very annoying. In practice, whatever they may possess in their language, they certainly use no numeral greater than three. When they wish to express four, they take to their fingers, which are to them as formidable instruments of calculation as a sliding rule is to an English school-boy. They puzzle very much after five, because no spare hand remains to grasp and secure the fingers that are required for 'units.' Yet they seldom lose oxen; the way in which they discover the loss of one, is not by the number of the herd being diminished, but by the absence of a face they know.

When bartering is going on, each sheep must be paid for separately. Thus, suppose two sticks of tobacco (a stick is about an ounce) to be the rate of exchange for one sheep, it would sorely puzzle a Damara to take two sheep and give him four sticks. I have done so, and seen a man first put two of the sticks apart and take a sight over them at one of the sheep he was about to sell. Having satisfied himself that that one was honestly paid for, and finding, to his surprise, that exactly two sticks remained in hand to settle the account for the other sheep, he would be afflicted with doubts; the transaction seemed to come out too 'pat' to be correct; and he would refer back to the first couple of sticks, and then his mind got hazy and confused, and wandered from one sheep to the other, and he broke off the transaction until two sticks were put into his hand and one sheep driven away, and then the other two sticks given him and the second sheep driven away. When a Damara's mind is bent upon number, it is too much occupied to dwell upon quantity: thus, a heifer is bought from a man for ten sticks of tobacco; his large hands being both spread out upon the ground, and a stick placed on each finger, he gathers up the tobacco; the size of the mass pleases him, and the bargain is struck.

You then want to buy a second heifer; the same process is gone through, but half sticks instead of whole ones are put upon his fingers; the man is equally satisfied at the time, but occasionally finds it out and complains the next day. Once, while I watched a Damara floundering hopelessly in a calculation on one side of me, I observed Dinah, my spaniel, equally embarrassed on the other. She was overlooking half a dozen of her new-born puppies, which had been removed two or three times from her; and her anxiety was excessive, as she tried to find out if they were all present, or if any were still missing. She kept puzzling and running her eyes over them backwards and forwards, but could not satisfy herself. She evidently had a vague notion of counting, but the figure was too large for her brain. Taking the two as they stood, dog and Damara, the comparison reflected no great honor on the man."

For the New England Farmer.

TIME FOR THOUGHT IN THE FIELDS.

FRIEND BROWN:—"A Reader," who criticises the articles in the *Monthly Farmer*, makes some remarks on the following sentence in Mr. Fay's Essex County address: "He who delves and digs the earth from morning until night, has little time and less inclination for thought." I have been happy to agree with him in most of his remarks, but do not in this. Cannot a man think while planting, hoeing, and harvesting his crops? Think ye the only place for deep thought is in the office of the lawyer, doctor, or office of the priest? Who that has one spark of animation left when he goes into his fields, with the free breath of heaven upon his cheeks, and standing upon soil which he calls his own, cannot think, and think deeply, too! I assure you it is not I.

"A Reader" says, "the advantages which the farmer enjoys for study and reflection, and his opportunities for profiting by the changes of seasons and the successive beauties which the rolling year presents for his admiration and improvement, are generally dwelt upon by agricultural orators in poetic ecstacies, (where is a better place to make poetry than in the field, on a pleasant summer morning?) that are but poorly realized by him who sits down in a warm room to study, after a day spent in the woods, with the thermometer pointing at zero; or by him who attempts to admire the glories of sunrise, after mowing long enough to be thinking of breakfast, or of his feet and legs, that are sopping wet with the chill dews of a summer morning." Now I have some experience in this matter, for I carry on my farm of about ninety acres, without the help of one hand, so much as three months in a year, and have been out teaming this winter with the thermometer pointing thirty degrees below zero, and had ample time for thought and consideration, and a grand time for study by a good fire when I got home. As to the glories of sunrise, no one can beat me in the admiration of that; and as to thinking of breakfast up here in Vermont, (except some of the very slack ones,) we are enjoying the glories of sunrise so much, even while mowing, that we are hardly ready to go when the summons comes; we have a way, also, to fix our feet and legs, so that we suffer no more from the chill dews (if I may call them so,) than if we remained in the house. We do not have to delve so but that we can look around upon nature and up to nature's God. If our friend "Reader" had said the farmer has less inclination to communicate his thoughts, I should probably agree with him.

Now, friend Brown, will you permit me to quote from an Essex address, by Hon. E. Everett, as in more accordance with my views. "The reflecting mind, it is true, beholds traces of a higher wisdom and goodness in every step of every walk of life; but the husbandman, who drops a seemingly lifeless seed into the cold, damp earth, there in a great part to decay—who sees the vital germ in a few days pierce the clod, rise into the air, drink the sun's rays and the dews of heaven, shoot upwards and expand, array itself in glories beyond the royal vesture of Solomon, extract from the same common earth and a thousand varieties of the green of the leaf—the rainbow hues of the petals—the juicy or the solid substance of the fruit, which is to form the food for man and his dependent animals,—I say the intelligent husbandman who beholds this, seems to step behind the veil which conceals the mysteries of creative power, and sit down (if I may so speak,) in the laboratory of Omnipotence."

Now, Mr. Editor, I have endeavored to make this as short as possible, and yet I have but just began; but I will ask one or two questions, and then stop. Cannot a farmer exercise his thoughts on various subjects, even when at work? And if he reads, will he not have inclination to criticise, compare, and come to conclusions? I think he will, and in this find rational and rapid improvement. W. S.

South Woodstock, Vt., Feb., 1855.

AMERICAN PLATE GLASS.

On Thursday, last week, we experienced the pleasure of seeing the first plate glass manufactory, established in our country, in successful operation, at the foot of North-sixth Street, Brooklyn, (formerly Williamsburg.) In the month of January last, not a brick of it was laid; and on the day mentioned, we saw six huge plates of glass, nine feet by four, cast with great expedition, and with as complete success as if it were in an old establishment. Some speeches were made, after witnessing the operations, by some of the select party invited; of these, some were very appropriate and pointed, others were not. Judge Beebee, who was present, paid Mr. Dickson, the manager, a very high compliment; he said he came here from England, with all the plans in his brain, and had ordered every thing from beginning to end; and so well had every thing been planned and executed, that not a single brick had to be relaid, and nothing has been wrong done.

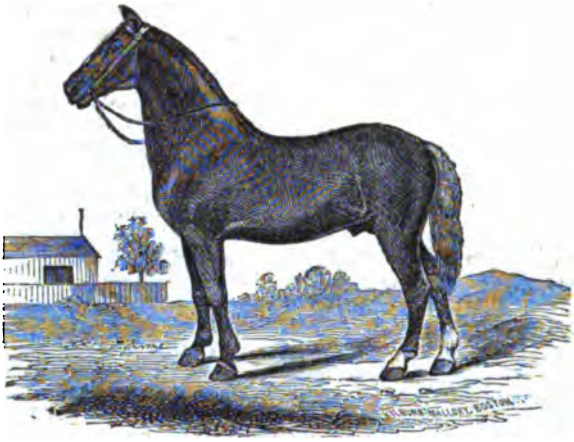
The process of making plate glass consists in melting the silex and flux in large crucibles, then emptying the molten mass upon a smooth iron bed, with guide ways or strips of metal at the sides, on which rolls a huge iron roller, which smooths down the molten mass on its bed like a baker rolling out a cake. When it congeals, which it does rapidly, it is shoved on a rolling table into the annealing oven. American white sand, for making glass, took the prize in the London Exhibition, in 1851, and we see no reason why we should not manufacture as good, if not better plate glass than any other nation. The six large plates were made in about an hour; every thing was conducted skilfully, and no mistakes were made; the utmost satisfaction was given. The best wishes were expressed for the success of the enterprising American Plate Glass Company.—*Scientific American.*

FROM A DAGUERREOTYPE OF THE SHERMAN MORGAN.

Sire,
Old Sherman,

—

Gr. Sire,
Justin Morgan.



Color,
Chestnut.

—

Weight,
1050.

KEPT BY A. J. CONGDEN, AT LANCASTER, N. H.

This horse, of *known* pedigree, as above, was 19 years old in August last. He was raised in Campton, N. H., and has been kept in New Hampshire, Vermont and New York. He now stands at the stable where the celebrated "Old Sherman" died, in 1835. Of *him* he is almost an exact pattern, on an enlarged scale. He is considered, by judges who have known both, a worthy successor to so distinguished a sire.

Of great docility, spirit, energy, speed and endurance; of beautiful color; of elegant form and action, he possesses an unusual combination of desirable qualities, and his well known stock is fully *proved* to be of the highest excellence.

Very few studs sired by the "Old Sherman," the most famous of the Morgans, still live—the "original Vermont Black Hawk" being one. The SHERMAN, some years younger than any other, is believed to be the *only* one east of the Connecticut.

At the same place stands also the "KENT MORGAN, 11 years old, bay, very elegant, a grandson of Old Sherman and of old Woodbury. Pedigree correct. He possesses a remarkable combination of the peculiar excellences of *both* these best original branches of the Morgan race. Colts of this horse command good prices—from $200 to $600.

BEEF AT ONE YEAR OLD.—We copied in an early number, an account of the success of Mr. Crowell, in rearing calves so as to fit them for the butcher at one year old. When a few days old he commenced feeding them on sour milk, keeping them on the same kind of food during the summer, taking good care to feed them uniformly, but not very abundantly, so as to keep them growing thriftily without forcing them too rapidly. In the fall they were put in the stables, and fed on hay, and a little meal, increasing the quantity of the latter gradually, with a view of fitting them for "beef" in the spring at one year old or a little under. These calves at eleven months old, look like young oxen, and are estimated to weigh about 600 pounds each alive. A correspondent at Cazenovia writes us that he has tried the same plan with equal success.—*Rural New-Yorker.*

For the New England Farmer.

CHEMISTRY.—No. 1.

WHAT MAY WE LEARN FROM IT?

MR. EDITOR:—With your permission, I propose to give your readers some facts in relation to this much-neglected branch of natural science; not, however, because I feel myself competent to the task, for I am a mere tyro in this important subject, and it is only to awaken an interest in it, and to call forth light from abler pens, that I attempt to say anything about it.

It is the province of chemistry to teach us of what all substances are made, the kind and proportion of matter in each, their relation to each other, and the changes that take place, and what it is that produces these changes. Everything of which we have any knowledge, from our own bodies down to the most insignificant plant that ever attracted the attention of man, is made up of proper substances in due proportions, and with the same species under the same circumstances, they are always alike.

Does the cultivator of the soil wish to aid nature in producing any vegetable? Chemistry tells him of what that vegetable is composed, thus telling him what to use as a stimulus to his growing crops.

Certain substances or chemical elements when brought together destroy (disorganize) each other. Here, too, she is ready to speak. The farmer who composts a cord of manure, does it at a loss, unless he acts in accordance with chemical principles. Nothing has been added and nothing lost since the creation, and all the varied forms of vegetation are only a change of matter, in form and location, and as these changes are constantly going on, not only around us but in our very systems, it must be of vital interest to us to know something of them as they daily occur. I am happy to be able to say that this branch of science, so useful to the farmer, is beginning to receive a share of the attention due it.

S. Tenney.

West Poland, Me., March, 1855.

For the New England Farmer.

SHAPING CATTLES' HORNS.

Mr. Editor:—In the *Farmer* of Jan 27, is an inquiry from Mr. S. F. Alger respecting the shaping of young cattles' horns; and as no one has seen fit to impart the information for which he wishes, I thought that I would send you a few lines, stating what little I know of the point in question. I have not had the experience of many others; but I have no hesitation in saying, that the horns of cattle if commenced with in season, may be made to assume any form to suit the taste of the operator, (provided it is reasonable.)

My first attempt to correct the freaks of nature in this matter, was upon the horns of a pair of steers, then owned by my father. Without giving the details, suffice it to say, that I *compelled* the horns of one steer to take a more upright position, and at the same time a broader view, so as to correspond with those of the other. Since that time I have had several cases, and have never failed of success. In my own opinion, the best *time* is to commence in the month of March, and continue the operation until the horns become hardened for the winter. The process is simply this; if you wish the horns to grow more upright, you must take a knife or other instrument, and by shaving or scraping, reduce the shell of the horn to about one-half the original thickness, as a *general* rule, (but this must depend on the amount you wish to alter the horn,) upon the *under* side of the horn. And if at the same time you wish to spread, or contract, always upon the opposite side of the horn from the direction in which you wish it to turn. The horn should always be left *perfectly* smooth, and occasionally oiled over with some penetrating oil. If the horns are to be *corrected* but little, the operation of thinning once may be sufficient, but if they are more imperfect, it may be necessary to follow them up with more thinning until they are *made to yield*. There may be others who will give better light than this, but if no one else shall respond to your request, this *small* light may be better than none at all.

Amplificator.

West Brookfield, Feb. 12, 1855.

Remarks.—Mr. J. Farnum, of Uxbridge, Mass., confirms the above, and says the reason is this: "The side of the horn thus scraped off, by loosening the hard surface, grows faster than the unscraped side, and causes the horn to turn or curl in an opposite direction."

For the New England Farmer.

CULTURE OF MADDER.

Mr. Editor:—Will you be so kind as to give your friends in this region some information in relation to the culture of Madder? This subject is exciting considerable interest in our community of late, and any information you may be able to impart through the *Farmer*, or to me, will be a favor to some of the readers of your valuable paper in this county. There is an old man in Hydepark who tells of working at it some time, when it was very profitable. I think information from you would be preferable to his. I wish to know whether a piece of the root is planted for the first crop, or whether I must start from the seed? Also, where shall I get it, what kind of soil, and what would be the probable income per acre?

A Lamoille Farmer.

Remarks.—Mr. Russell Bronson, of Birmingham, Huron County, Ohio, a successful cultivator of madder, has published a communication upon this subject, which contains the following information:—

"A location facing the south or south-east, is to be preferred. A sandy loam, not over stiff and heavy or light and sandy, or a good brown, deep, rich upland loam, free from foul grass, weeds, stones, or stumps of trees. Where a crop of potatoes, peas, corn, or wheat has been cultivated the past season, plow deep twice, once in September and once in October, and if rather stiff, let it lie after the plow until spring. When the spring opens, and the ground has become dry and warm—say in Tennessee 1st of April, Ohio 15th, and New York 25th to 1st of May, (I speak of the spring of 1836,)—plow again deep, the deeper the better; then harrow well and strike it it into ridges with a one-horse plow, 3 feet wide and 4 feet vacant, or making a ridge once in 7 feet, raising it, if on rather moist ground, 8 or 10 inches, and dry land 6 or 8 from the natural level; then, with a light harrow, level and shape the ridges like a well-formed bed of beets, &c.

We will suppose you intend to plant one acre of ground, and that you have purchased eight bushels of tap roots in the fall, and buried them like potatoes on your premises; count the ridges on your acre, and take out of the ground one bushel of roots and plant it on one eighth of your ridges; you will then be able to ascertain how to proportion your roots for the remainder.

The following is the *manner of planting*, *cultivating*, &c., when the quantities of ground do not exceed three or four acres. One person on each side of the ridge to make the holes, (plant four inches below the surface of the bed, or thereabouts, when covered,) one on each side to drop the roots, and one on each side to cover, pressing the hill in the manner of planting corn; or three persons may be placed on one side, as the case may be, whether you have one or more acres to plant. Let the owner be the dropper of roots, and his most thorough assistant behind him. Make the holes from 12 to 18 inches apart, and about six inches from the edge of the ridge. As the plants are supposed to have been purchased in the fall, the roots may have thrown out sprouts, and possibly have leaved. In this case, in dropping and covering, you will leave the most prominent sprouts a little out of the ground, as where a plant has leaved, it ought not to be smothered.

When the plant gets up three or four inches, weed with the hoe, and plow with one horse between the ridges or beds, but not on them; this will take place two or three weeks after planting. When up 12 or 15 inches, many of the tops will fall; assist them with ten feet poles crossing the beds, covering with a shovel or garden-rake, throwing the soil from between the ridges. After loosening with the one-horse plow, you will, with a shovel, scatter the earth between the stalks, rather than throw it into heaps; of course we wish to keep the stalks separate, as they are to form new and important roots in the centre of the beds. About the 20th of June you may plow between the beds, and scatter more earth on the fresh tops, (all but the ends,) and when you get through, you may plant potatoes between the beds, if you please. I do not recommend it if you have plenty of land, although I raised 1070 bushels of pink-eyes on eight acres the first year, and sixty bushels of corn. If your land is perfectly clear of weeds, you are through with your labor on the madder crop for this year, except in latitudes where there is not much snow and considerable frost; in this case, cover in October, two inches or thereabouts. Second year, some operations in weeding, but no crop between; cover once in June. Third year, weed only. Fourth year, weed in the spring, if a weedy piece of ground.

Begin to plow out the roots in Tennessee (3 years old) 1st of September; Ohio (4 years) same time; New York 15th or 20th, after cutting off the tops with a sharp hoe. In plowing out the roots, use a heavy span of horses and a large plow. We ought to choose a soil neither too wet nor too dry, too stiff or light. Shake the dirt from the roots, and rinse or wash, as the soil may be stiff or light; dry in a common hop-kiln; grind them in a mill similar to Wilson's patent coffee-mill; this mill weighs from one to two pounds. The madder mill may be from sixty to 80 pounds weight. Grind coarse, and fan in a fanning mill; then grind again for market. The profit of this crop is immense; the exhaustion of soil trifling, and glutting the market out of the question.

Madder is used in whole, or part, for the following colors on wool, both in England, France and America, viz.: blue, black, red, buff, olive-brown, olive, navy blue, and many others; finally, it produces one of the most beautiful, durable, and healthy colors that is at this time dyed; as for calico printers, it enters greatly into their dyes.—*Am. Farmer's Instructor.*

As the tops of the plants spread very much, some advise placing them in hills, somewhat like Indian corn, four and even six feet apart each way, and two plants in each hill."

DEPTH OF PLANTING SEEDS.—We find the following from a foreign author, among the papers read before the Farmer's Club of the American Institute:

Seed buried ½ inch deep, up in 11 days, 7-8ths of them; 1 inch deep, in 12 days, all; 2 inches deep, in 18 days, 7-8ths; 3 inches deep, in 20 days, ¾th; 4 inches deep, in 21 days, ½; 5 inches deep, in 22 days, 3-8ths; 6 inches deep, 23 days, only one came up.

The rays of the sun furnish light—those nearest the yellow are remarkable for impeding the heat-giving rays are favorable to it, if plenty of water is present; while the blue rays, or those concerned in chemical action or actimism, (from the Greek actim, a ray,) accelerate the process and cause a rapid growth. His experiments were, making the light pass through colored glasses upon the vegetable. He thinks that a blue glass will prevent scorching of leaves, and that red glass will increase the heat. He says that a pale green glass made with oxide of copper, is best fitted for conservatories—green being a compound of the yellow or luminous rays with the blue or chemical rays. A delicate emerald green glass has, at his suggestion, been used in glazing the large Pall House at Kew.

NATIVE.

Some discussion has been had of late, as to the use and meaning of this term—chiefly as it is applied to cattle, or stock upon the farm. In itself, it is as clear and as intelligible, as any other word that is used, being defined by the Latin word from which it is derived, which simply indicates the fact of being born, or the place of birth. If there be any ambiguity or uncertainty about this term, it must be from the words to which it is often attached, rather than from the word itself.

As for instance, speaking of natives, meaning native cattle or native breeds of cattle, one may have ideas relating only to the place in which they came into being, another to those considerations which ensure the ability to reproduce the like. It therefore is of the highest importance, that writers who would instruct others, should accurately explain the meaning of the words they use, in the connection in which they are used.

We find no fault with these discussions—we think their effect is decidedly beneficial; but we are sorry that gentlemen of distinguished ability, should waste their strength on *words only*—remembering, as the great Doctor Johnson long ago said, that

> "Words are the daughters of earth,
> Things the sons of heaven."

TO CURE SHEEP SKIN WITH THE WOOL ON.—Take one table spoonful of alum and two of saltpetre; pulverize and mix well together, then sprinkle the powder on the flesh side of the skin, and lay the two flesh sides together, leaving the wool outside. Then fold up the skins as you can, and hang them in a dry place. In two or three days as soon as they are dry, take them down and scrape them with a blunt knife till clean and supple. This completes the process, and makes a most excellent saddle cover. Other skins which you desire to cure with the fur on, may be treated in the same way.

We can speak in favor of the above recipe. It does all it promises. Such skins make excellent mats for in-doors.—*Farmer's Companion.*

For the New England Farmer.

THE CURCULIO.

Mr. Brown:—As the season is fast approaching in which this insect commences its depredations upon the plum, I wish to call the attention of those who have had more experience in plum-raising than myself, that if possible some remedy may be devised to destroy this noxious insect, or prevent its attacks upon this wholesome fruit. I would like to inquire at what time, and how, they propagate their species? The egg or larvæ that is deposited in the fruit, falls to the ground in the premature decay of the plum; and the changes which take place from this time until it comes forth a perfect insect, ready again to destroy the choice fruits of our labor, are unknown to me. If it lies during this time in the ground beneath the tree, why can it not be destroyed by placing stone lime under the trees, and slaking it there, or by the application of ashes, salt, or some other substance that is destructive to animal life? I am not satisfied as to the amount of territory which they traverse, whether they roam about like other winged insects from tree to tree which are at a distance from each other, or whether they remain about the tree on which they are first found. I have several trees which have been growing for years, on which I have never found a ripe plum; they blossom and set well, but not one tree escapes the bite of the deadly enemy, while many of my neighbors, near by, have an abundance of fruit. If all who have trees on which they hope to raise this fruit, will try experiments, and devise some means of preventing its destruction, and those who have tried and been successful, will make their remedies known through your valuable paper, they will confer a favor on many lovers of good fruit. Carlos.

Middlebury, Vt., May 7, 1855.

Remarks.—The plum-weevil, or curculio, as it is often called, is fully described by Dr. Harris, in his excellent work on "Insects Injurious to Vegetation." He says "they begin to sting the plums as soon as the fruit is set, and continue their operations to the middle of July, or as some say, till the first of August. In doing this, the beetle makes a small crescent-shaped incision with its snout, in the skin of the plum, and then, turning round, inserts an egg in the wound. From one plum it goes to another, until its store of eggs is exhausted; so that, where these beetles abound, not a plum will escape being stung. Very rarely is there more than one incision made in the same fruit; and the weevil lays only a single egg therein. The insect hatched from this egg is a little, whitish grub, destitute of feet, and very much like a maggot in appearance, except that it has a distinct, rounded, light brown head. It immediately burrows obliquely into the fruit, and finally penetrates to the stone. The irritation, arising from the wounds, and from the gnawing of the grubs, causes the young fruit to become gummy, diseased, and finally to drop before it is ripe. Meanwhile, the grub comes to its growth, and immediately after the falling of the fruit, quits the latter and burrows in the ground. This may occur at various times between the middle of June and of August; and in about three weeks afterwards, the insect completes its transformation and comes out of the ground in the beetle form."

The fruit may be preserved by dusting it with lime, ashes or plaster, twice a week, when the fruit is wet, beginning as soon as it is as large as a pea. We cannot account for the fact that your neighbor's fruit is not attacked.

For the New England Farmer.

MIXING DIFFERENT VARIETIES OF CORN, AND CUTTING THE STALKS.

Observations of an octogenarian on the mixing of different varieties of corn, and on the practice of cutting the stalks of corn.

The fact has never been doubted that the produce of different sorts of corn which are planted side by side, will be mixed. But how this result is caused seems not to be generally understood.

The common opinion has been and still is, that it is caused by the falling of the pollen from the top stalk on to the end of the ear. My observation teaches me otherwise. There is to every kernel a silk which is tuberous, and when fully grown the end of it, beyond the top of the ear, falls down, so that the pollen could have no effect upon it.

If you go into a field of corn, on a calm day, you will see, by means of a good glass, vapors, like the thread of a spider's web, pointing from the top stalk to the end of the ear. I have seen this without a glass when the vapors were so abundant as to effect the light over the field, making it less clear than it is at a distance. It is in this way, I believe, by a law of attraction, that the effect is produced. I have seen one man who had made the same observation, but had not thought of its application.

Now a little, if you please, about cutting the top stalks of corn.

By some this is never practiced, because they believe the corn is benefited by having the stalks remain till it is ripe. Let us see. Every ear of corn comes out of a joint, and for the corn to be benefited by the stalk, the sap in the stalk must descend to the joint and ascend to the ear, which I think no observer of the circulation of sap in vegetables will admit to be the case. After years of careful observation, I am convinced that the stalk does no good to the corn after the top of it is dry. But if the top stalks are then removed, the sun will be let in upon the ears and the corn will ripen much faster. *Book Farmers*, I suppose, think otherwise, and recommend cutting up the corn entirely, or suffering the whole to remain till perfectly ripe.

Westboro', Dec. 11, 1855.

Pickled Peaches.—Take a gallon of good vinegar, add a few pounds of sugar, boil it for a few moments, and remove any scum that may rise;

then take cling stone peaches that are fully ripe, rub them with a flannel cloth, to get off the down upon them, and stick three or four cloves in each; put them into a glass or earthen vessel, and pour the liquor upon them boiling hot; cover them up, and let them stand in a cool place for a week or ten days, then pour off the liquor and boil it as before, after which return it boiling to the peaches, which should be carefully covered up and stored away for future use.

For the New England Farmer.

THE WOOD-THRUSH.

This bird has not, I believe, been mentioned in any of the essays which have occasionally appeared in the *Farmer* upon the "Birds of New England." I have been hoping some one would write upon the merits of this sweet songster of our woods and groves, but, despairing of this, have myself undertaken the pleasing task. The wood-thrush, wood-robin, or ground, as it is differently named, inhabits the whole of North America, from Hudson's Bay to the peninsula of Florida. It arrives in New England towards the last of April, and returns to the south about the beginning of October. Not having its *exact* description, I have quoted the following from Wilson's *American Ornithology:* "It measures eight inches in length, and thirteen from tip to tip of the expanded wings; the upper mandible of a dusky brown, bent at the point and slightly notched; the lower, a flesh color towards the base; the legs are long, and, as well as the claws, of a pale flesh color, or almost transparent. The whole upper parts are of a brown-fulvous color, brightening into redish on the head, and inclining to an olive on the rump and tail; chin white; throat and breast white, tinged with a light buff color, and beautifully marked with pointed spots of black or dusky, running in chains from the sides of the mouth, and intersecting each other all over the breast to the belly, which, with the vent, is of a pure white; a narrow circle of white surrounds the eye, which is large and full, the pupil black, and the iris of a dark chocolate color; the inside of the mouth is yellow. The male and female of this species, as, indeed, of almost the whole genus of thrushes, differ so little as scarcely to be distinguished from each other."

His powers of song are thus described: "But at whatever time the wood-thrush may arrive, he soon announces his presence in the woods. With the dawn of the succeeding morning, mounting to the top of some tall tree that rises from a low, thick-shaded part of the woods, he pipes his few, but clear and musical notes, in a kind of ecstacy, the prelude or symphony to which strongly resembles the double-tonguing of a German flute, and sometimes the tinkling of a small bell; the whole song consists of five or six parts, the last note of each of which is in such a tone as to leave the conclusion evidently suspended; the finale is finely managed, and with such charming effect as to soothe and tranquilize the mind, and to seem sweeter and mellower at each successive repetition.

"The favorite haunts of the wood-thrush are low, thick-shaded hollows, through which a small brook meanders, overhung with alder bushes, that are mantled with wild vines. Near such a scene he generally builds his nest, in a laurel or alder bush. Outwardly it is composed of withered beech leaves of the preceding year, laid at the bottom in considerable quantities, no doubt to prevent damp and moisture from ascending through, being generally built in low, wet situations; above these are layers of knotty stalks of withered grass, mixed with mud and smoothly plastered, above which is laid a slight lining of fine, black, fibrous roots of plants. The eggs are four, sometimes five, of a uniform light blue, without any spots.

"The wood-thrush appears always singly or in pairs, and is of a shy, retired, unobtrusive disposition. With the modesty of true merit, he charms you with his song, but is content and even solicitous to be concealed. They are easily reared from the nest, and sing nearly as well in confinement as when free."

By the above description of the wood-thrush, it will readily be distinguished from the brown thrush, or thrasher, as it is called in New England, which is a larger species of the thrush, and a well known and very distinguished songster, but far inferior to the wood-thrush in richness and melody of voice. From my early youth, the song of the wood-thrush has, for me, had a peculiar charm—a charm which I have never found in the song of any other bird. His usual time of song is in the early morn and between sunset and dark; but sometimes his sweet voice can be heard in some shady retreat, at the still hour of noon. In cloudy or wet weather, his clear, musical notes can be heard from morning till night. There is something in the rich tones of his voice which is indescribably sweet and harmonious, and which, together with the solitude and beauty of the place he usually selects to unburden his full heart of its melody, cannot fail to please the ear and benefit the heart of him or her who hears aright—to draw the thoughts away from earth and lift them above, even to those blissful regions of perpetual spring, where are heard purer, sweeter and more thrilling strains, than was ever heard by mortal ears.

"The song of the wood-thrush," says Mr. Audubon, "although composed of but few notes, is so powerful, distinct, clear and mellow, that it is impossible for any person to hear it without being struck with the effect it produces on the mind. I do not know to what instrumental sounds I can compare these notes, for I really know none so melodious and harmonical."

He has two other modes of song which are not mentioned by Wilson; the first consists of three or four singular and rather plaintive notes, of a similar sound, which seem to come partly through his nostrils; although they cannot be compared with those of his best song as to clearness and melody, yet they are pleasing to hear, and the more so the nearer you are to the musician; the other is composed of only two notes—a higher and a lower; but these are loud, clear and melodious; the lower note is sometimes sounded first, but more frequently the higher. He has also a low, chirping note, peculiar to himself, which he frequently uses.

Dear reader, is your heart sad? Are you weary of the world, or of your own inclinations? Does your spirit long for a nobler, truer life than this? Go forth into nature's sanctuary, the green woods, in the dewy morn or at evening's twilight hour, and listen to the song of praise offered by this sinless worshipper to the great Creator, and if you have a *true*, *earnest* and *persevering* desire in your inmost soul that you too may offer, from a heart as free and joyous, a song as pure and acceptable to the Infinite God as does this innocent warbler, that desire will surely be gratified; if not fully granted in this life, *yet it will be hereafter*. S. L. White.

Groton, May 18, 1855.

For the New England Farmer.

THE CULTURE OF RAPE OR COLE.

This plant, which belongs to the cabbage family, is extensively cultivated in many parts of Europe, both for the seed, from which an oil is expressed, which is used for the purpose of illumination, and for the succulent food which it yields in great abundance, at a season when other fodder is usually scarce. Its thick leaves and stalks are much relished by cows and sheep, and are very nutritious. I know no reason why this plant should not be extensively cultivated by our milk-raisers. Indeed, it appears to be the very article they need, upon which to feed their cows in June and July, before the green corn is large enough to begin to cut. The seed, if not used for its oil, is probably, when ground, quite as valuable as linseed meal for feeding cows. It is coming into extensive use for this purpose in Germany and England. Large quantities are annually imported into this country, at an expense of $3 or $4 per bushel, for feeding cage birds.

There are two varieties of this plant. One called the colra, has its leaves covered with short hairs or bristles, while the leaf of the rape is smooth. The rough-leaved variety is said to be the most productive. The rape is a biennial plant, that is, it is sown in one season, and matures its seed in the following season, like winter rye and wheat. It is cultivated, sown broadcast, or in drills. The latter method is decidedly the best. It requires a good soil, such as would produce good crops of barley or wheat. The soil must be thoroughly worked and pulverized, and well manured with compost. Ashes is found to be an excellent manure for it, and very much to increase its product. The seed should be sown in drills in a bed, early in August. The bed should be prepared with the spade and made rich. They should not be sown too thick. Land from which barley or wheat has been taken may be prepared by thorough plowing, manuring, and harrowing to receive the plants.

The plants should be transferred from the bed to the field in which they are to grow, in September and October. When this crop is cultivated on a large scale, it is usual to make a furrow with a small plow, and against the upright side of the furrow place the plants about ten inches apart, and then by a return of the plow throw the soil again into the furrow, and then with a hoe level the earth and press it against the plants by the foot. They are then left until the following spring, when, if the rows are sufficiently distant, a plow may be passed between them, and the weeds carefully removed by the hoe and the fingers, or the wheel-hoe may be used instead of the plow. This will allow the rows to be placed nearer to each other than when the plow is to be used.

When the crop is to be cultivated on a small scale, it is usual to use a dibble or small spade. This is inserted into the ground, and by bearing the handle towards the body, a wedge-shaped opening is made, into each end of which a plant is inserted by a boy. The spade is then withdrawn, and the earth is pressed around the roots of the plants. The plants should be raised carefully from the bed in which they are started, by a fork, and with as much dirt as possible adhering to their roots, laid into baskets, and handled with much care when they are inserted into the ground. If the plants are watered with night-soil steeped in water, sink drainings, or other liquid manures in the spring, they will become extremely luxuriant. They should be kept free of weeds, and the earth frequently stirred around their roots. The lower pods are apt to become ripe, before those on the topmost branches. When most of the pods are ripe, it should be cut while the dew is on it, and laid upon sheets, or upon a wagon with a tight bottom; after lying one or two days in the sun, or on the barn-floor where the air can have free access to it, it is threshed, and the seed spread upon a floor and frequently stirred to prevent its heating. It is common in Germany to thresh it on sheets in the field. Cattle and sheep are very fond of the pods and small branches broken off in threshing.

The above are the principal facts connected with the culture of this plant in Europe. Experience will determine how far European methods require to be varied to suit our climate. Who will make an experiment in its culture this season, and report, a year from next fall, the results? Seed may be obtained at Wilson, Fairbanks & Co.'s, Hanover Street, or at most of the wholesale druggists, or at the seed stores.

Concord. J. R.

For the New England Farmer.

POULTRY, &c.—No. I.

Mr. Editor:—I have been requested several times to state how I manage laying hens when shut up, and with your leave I will do so through the medium of the *Farmer*, if you think any benefit will be derived thereby.

First, a good dry shelter or building, with a southern aspect, with yard one rod of land at least for ten or twelve hens. Second, their food should be corn and oats, in equal quantities, by them always; also fresh water, pulverized oyster shells and gravel, where they can obtain them when they require; they should have meat three times a week, or beef scraps, that can be obtained of the tallow chandler, one pound of the former or half a pound of the latter, and as often should have raw vegetables, such as cabbage, potatoes, carrots, and grass in summer and hay in winter. Third, keep no rooster.

To obtain the greatest amount of profit from a hen-yard, I am of opinion, from a fifteen years' experience, that more eggs can be obtained at a less relative expense from twelve hens, or a less number, than from a larger one, when yarded together. Never winter a fowl twice, but kill off at the time they begin to shed their feathers, and supply their places with laying pullets. In the selection of pullets, get a good yellow-legged fowl, of medium size, (avoid large ones,) and make no inquiry about the breed. Setters should be shut in a lattice coop, open on all sides, and remain in the enclosure with the rest, and have plenty of food until she leaves the nest, when she will soon lay again.

The greatest nuisance that I have to contend with, and which I think is the cause of more failures in the management of poultry than all other causes combined, is the vermin, or ticks, that infest their roosts in warm weather. Many doubt their existence because they could never find any upon their fowls. When they get into a building, it is next to an impossibility to eradicate them. Various means have been tried to exterminate them, and all have failed because of their tenacity of life and small size. It is useless to expect profit or pleasure while these pests are allowed to increase. As they do not remain upon the fowls any longer than to fill them, something must be done to keep them under in warm weather, and I have found nothing better than the following: Have a smooth roost, and nail a lath or two to the under side of the same, to cover cavities previously made with an inch auger, where they can secrete themselves when filled; then, once or twice a week, carry out the laths and saturate them with boiling water. Another remedy is to smear with poor oil once a week, or oftener if necessary. Every person who has a family should keep half a dozen laying hens; they will eat every thing that a pig will, and, if well cared for, are more profitable.

Concord, May 12, 1855. H.

IT WILL SAVE TIME.

We have always been advocates for the introduction of new machines and implements, for the purposes of husbandry. We have often echoed the popular remark, "*It will save time.*"

It has sometimes occurred to us, that this thought deserved a more careful consideration. What is the object of saving time? Would it be better for us all, if we could have our labor performed entirely by steam and water-power, and that we should be exempt from physical toil? certainly it would not. A certain amount of labor with the hands, as well as the head, is essen- to health and energy of character.

Again, in a community where the laborers, as in the Southern States, are ignorant, so that they could not give their time to reading or writing and the cultivation of the mind generally, exemption from labor would be followed by the worst consequences.

In our New England cities, even, were employment suddenly to cease, though abundant means of sustaining life were provided, we should at once have among our citizens a most dangerous element, in a class unemployed in their accustomed labors, and without the resources to preserve them in a life of leisure.

It seems, then, that however desirable we are in the habit of thinking a life of leisure to be, it is not so under all considerations. *Whenever the time exempted from labor is occupied in the cultivation of the mind and heart, then is such time truly saved.*

The mechanic, who by the aid of machinery, or by double effort, finishes his day's work, so that he has a long evening which he devotes to the drinking saloon, or card table, has saved no time. His condition would be better were he at his task till bed-time, at his bench or anvil. The farmer, who on an easy soil, can earn his week's support by a day's labor, and give all his leisure to horse-racing and gambling, has saved no time. A hard soil and a small return would be a blessing to him, if they kept him from evil companionship.

But when society has reached that condition, as it has in most of New England, that our young men and women are really desirous to improve their minds; when they have arrived at the period, that they desire to increase their knowledge, and will devote their leisure hours to books and the elegant and innocent recreation of music and lectures and refined conversation, then a partial exemption from toil has become truly a blessing. Severe bodily labor is hardly consistent with the highest intellectual cultivation. To be be more explicit, it is rarely possible for a man to devote many hours in the day to hard work with his hands, and in the same day perform much labor in study, while considerable physical exercise daily is essential to intellectual as well as bodily health and strength. Undoubtedly, most of our farmers, in the summer months, work too hard for the best exercise of their mental powers. Ten hours of labor under our hot sun, in the field, is too much of a tax on one's vital energies to allow him to be a severe student the remainder of his waking hours.

Then let us endeavor to *save time.* Let us make use of plows and harrows of the most approved form. Let us introduce mowing machines, and horse-rakes, corn-shellers and potato-diggers; let us make the wind draw our water, and the water drive our machinery, and the steam take its place at the wheel. Let us, by all means, here in New England, where men desire knowledge, and know the value of leisure, do all we can to lessen human toil.

Time saved from bodily labor, and given to education, is time indeed saved, and there is a reciprocal action which is working wonders in this direction, and which is daily tending to relieve the laborer.

The farmer or mechanic feels the value of time. He finds it necessary to have some hours for study. He finds the labor of swinging the scythe too hard. He sets his wits at work, and the mowing machine is invented, and his horses, with a tenth his own former toil, perform his daily task. And so of all other labor-performing machines. They merely illustrate how much better is the mind than the body—how much better educated labor than mere brute force.

For the New England Farmer.

COUNTRY FARMERS AND CITY MECHANICS.

HEALTH.

"How's your health?" is one of our first salutatory expressions as we meet our friends; though I hardly know why it should be so, when so few of us seem to care for health so long as we are getting rich. If money can be made rapidly in any business or place, few stop to inquire into its healthiness. If large wages are offered by the factory or shop, who cares for the poisonous dust that may ulcerate the lungs, for the cramped position that may inflame the liver, or for the heated atmosphere that must debilitate the whole system? The love of life is said to be one of the strongest instincts of human nature, but the preservation of health seems to be one of the last objects of our concern. We follow fashion in dress and diet, and run the race for wealth utterly reckless of the dangers to which we expose our health.

It is, therefore, with faint hopes of doing good that I commence this article. When I was attempting to show that, notwithstanding all the glitter of large wages in the city, mechanics here in the long run actually come out poorer than farmers in the country, I expected to be heard. But now that my subject refers to the comparative health of the two classes, who will read? Besides this general indifference, there is no chance for argument. There is no body to dispute with. Every body that thinks at all admits farming to be "rather" the most healthy—every body knows that in-door confinement is less favorable to the development of the physical man, and to long life, than out-door exercise; that caged men and caged birds are inferior to those who enjoy the open fields; that men who work in the shade, like potatoes which grow in the cellar, have a sickly, unnatural look, and are in fact sickly, unnatural things. The fact, then, being admitted, we have only to consider the magnitude or degree of this difference:—*How much more healthy is the farmer than the mechanic?*

Fortunately we have the means for a reliable answer to this important question. The Secretary of the State of Massachusetts compiles an abstract of the returns, which by law are required to be made to him, by each town in the State, of Births, Marriages, and Deaths. This abstract is published annually. These statistics are probably collected and arranged with greater care and accuracy than any others of the kind in this country. The Twelfth Annual Report, or that for 1853, is before us. We make a few extracts from "Table X.," which gives the result for nine years and eight months, of persons who have died over twenty years of age—those dying younger are not included. From something over seventy occupations into which "mechanics" are divided, I have selected the following from among the leading kinds as to numbers.

Occupations.	No. of Deaths reported.	Average Age at Death.	At 20 yrs. old, may expect to live—
Agriculturists	7.735	64.03	44.03
Carpenters	1.127	49.41	29.41
Shoemakers	1.839	43.10	23.10
Blacksmiths	541	51.62	31.62
Painters	275	42.00	22.00
Masons	273	48.32	28.32
Machinists	268	37.15	17.15
Tailors	192	43.87	23.87
Operatives	173	33.17	13.17
Printers	91	36.46	16.46
Hatters	88	53.87	33.87
Tinsmiths	52	41.44	21.44

In the table from which the above is extracted, the deaths of 7,781 mechanics of all occupations are reported, (forty-six more than of farmers,) whose average age is exactly forty-six years, while that of farmers is a fraction over sixty-four years—or a difference of eighteen years in favor of agriculture. Accordingly, at twenty years of age, a farmer may expect to live forty-four years; a mechanic only twenty-six. But there appears to be a great difference in the health of the various occupations. Carpenters and masons who work much in the open air, live nearly 50 years, while machinists, operatives and printers fall considerably short of 40 years.

But it is not my intention to go into the details of this subject. My object is simply to urge the many farmer's boys who are seriously thinking of leaving the farm for a trade, to take into account the subject of health, as well as that of wages. I judge you, boys, by myself when I say that you do not do this. When I was making up my mind to be a mechanic, I compared the ten dollars a month of the farmer with the ten dollars a week of the mechanic—the hard work and exposure to heat and cold, to dust and mud, of the one, with light work and comfortable shelter of the other, without looking the fact in the face that,

Farmers	at 20 years of age	may expect	to live	44	yrs. longer.
Machinists	"	"	"	"	17	"
Printers	"	"	"	"	16	"

Yet such is the fact, as appears from the published returns of deaths in Massachusetts for the last ten years.

Nor is this all. Short life is not the only penalty for violating the laws of health; but all the ills "that flesh is heir to" when abused, follow close upon the heels of the transgressor. To wear out in twenty years a constitution that was made to last forty, requires no small amount of headaches and foul stomachs, of darting pains and twitching nerves. The full-blooded, stalwart country boy is not transformed into the pale, debilitated, city mechanic, without admonitory remonstrances of his physical system, by pains and lassitude, that ought to be heeded as "warnings," but which he too often attempts to allay by stimulants. And here, by the way, we find perhaps the reason of a fact that has excited some wonder, viz: that the more unhealthy and short-lived any class of mechanics, the more dissipated they are. The causes which shorten life produce a condition of the nervous system that can scarcely be endured, but which stimulants will for the time being greatly relieve. Glass-blowers, printers of morning papers, and others who work nights, as they rouse themselves from their morning nap, experience feelings of real misery, which, if they were not the result of a criminal abuse of health that ought to be abandoned at once, would seem to justify them, if any thing can, in taking "a little something" to steady the nerves and to wake them up. The doctor has no patient that needs it more. Here is indeed a real "case of sickness." But as the remedy touches not the disease, the patient finds that the more he doses the more he must, to keep comfortable. Poor fellow, what are large wages to him, now that his medicine has become his master?

Since I commenced these articles, one correspondent of the *Farmer* has asked, and probably a great many readers have thought of asking, Why do not city mechanics oftener try farming, if all I say of their hard lot is true? There are undoubtedly many reasons for it, but the want of sufficient health and strength is the most conclusive. Look at a sedentary city mechanic,—a jour. tailor, jeweler, engraver, or painter,—what can he do at farming? His hands are small and delicate, his sinews are unstrung, and every way his physical system has become unfitted for farming, in proportion as it is fitted and conformed to the necessities of his trade. He can perhaps sit all day long bent nearly double, and by much practice he can ply the needle, the brush, or the graver, with wonderful dexterity: but give him an axe or a scythe, or set him at the plow or at building fence, and you will soon discover a satisfactory answer to the question proposed, and see why it is very dangerous if not very foolish for such mechanics to attempt the realization of their agricultural dreams, although the distance between them and Kanzas "lends enchantment to the view."

We close this article with a brief summary of our argument. Mechanics live some eighteen years less than farmers; many are half dead while they do live; and their systems often become so conformed to the peculiarities of their business that they are good for nothing else, and consequently cannot return to the farm if they are ever so well satisfied that they made a mistake in leaving it and becoming

Boston, May, 1855. A City Mechanic.

For the New England Farmer.

THE OAKES COW.

Friend Brown:—The life-like picture of the most celebrated cow of New England origin, together with the facts of her history, contained in the *Farmer* of Saturday last, are the most satisfactory answers that can be given to the inquiry, "What is a native cow?" In view of these facts, there are a few who will presume to deny the right of this animal to this appellation.

I have been not a little surprised, in looking over the returns of our several Agricultural Societies, to see with what avidity all facts tending to magnify the importance of imported breeds, are seized and published. There is a sort of aristocratic consequence connected with these, not unlike that claimed by the higher classes of citizens in our cities and villages, which keeps at a distance those of humbler origin. In an elaborate report on stocks, from the county of Bristol, contained in the volume of *Massachusetts Agriculture*, recently published, the writer, after running down the Devons (first introduced to our shores by the Plymouth pilgrims,) to the lowest point of degeneracy, remarks, "our native cattle are not without great merit." If it be true that, amid all the deprivations and hardships they had to encounter, they still retain "great merit," why deny them the power of perpetuating their own characteristics? This power is claimed *exclusively* for animals recently imported. Is there not something arbitrary in this pretension? I have not in mind so distinctly the history of these races, as to speak with entire confidence; but, judging of a New England cow as I would of any other class of animals, I should say, under a proper care and keeping, with due regard to her associates, she would be as likely to rear a good calf as any other breed of animals. Possibly she may have been so overfed, to increase her milk, as to impair her procreative energies; but such overfeeding does not in the least impugn the principle for which I would contend. Equality I readily grant to foreigners—superiority never. *

Remarks.—As we understand it, purity of blood comes from long and careful breeding of the same type; if of Devon, then of the best blood of the Devon, on both sides, for several generations, and so of any other breed. Our common cattle are a mixture of various breeds, but that this mixture is not as profitable stock for us as any of the pure breeds, we are not ready to assert.

For the New England Farmer.

SHORT HISTORY FOR YOUNG MEN.

Mr. Brown:—Having been a constant reader of the *N. E. Farmer* for the past twelve months, and having derived a great deal of information from its pages, I have come to the conclusion that my two dollars was a good investment, and that myself and family cannot well dispense with its weekly visits. You will find enclosed two dollars for another year's subscription.

Having seen several times in your paper the contrast between country and city life, some of the circumstances mentioned have applied very nearly to my own case, so much so, that I take the liberty to write a few lessons that I have learned.

When I was eighteen years of age, I had become pretty tired of working on my father's farm, and being pretty well tickled up with the fine stories and fine clothes that some of my acquaintance had brought from Boston, I came to the conclusion that farming was not respectable enough, and would never do for me, and that I must at some rate or other live a city life of independence. All the persuasions and threats of my father were of no avail; go to Boston I must, so my friends concluded to let me try it. In 1840, I found myself in Boston, without any other occupation than to take my chance as a laborer at anything that should present itself for me to do; at this time business was dull, and had it not been for an acquaintance, I should have had to return home with disappointment; but at last, I obtained a situation, not at $10, $15 or $20 per week, but at the sum of one dollar per day, and pay my own reckoning. This, thought I, at any rate, is better than digging on a farm for nothing, and besides, I am my own master. I formed a resolution to save my wages, be temperate, and show my relatives that in spite of their persuasions I could live and gain independence in the city. Well, at the end of one year, I found my gains to be about 0, having lost all of my wages by my employer becoming bankrupt. I had taken up barely enough of my earnings to pay my board and purchase a few clothes, &c. This did not exactly agree with my notions of city independence, for I had worked harder than ever before, spent no money needlessly, and was not so independent after all, but what if taken sick I should find some embarrassments.

I began my second lesson by resolving to collect my wages as I went along, and continued to labor hard, and fare hard, at wages averaging about thirty dollars per month, for four years, occasionally changing places as I thought for my advantage. At the end of this time I found my fortune to consist of about 0, after accommodating a friend with $140 which he absquatulated with, and paying doctors' bills, &c. All of these expenses I found higher than such usually are in the country among one's friends. This ends lesson second—two rather costly lessons, for me, at least. This I found brought independence and myself farther apart than when I left *home* and the *farm*. At the end of seven years, I found myself hobbling about the streets on crutches, having had the misfortune to have one of my legs broken, about fifty dollars in debt and no means to pay, with a wife and child dependent on me for support. Here was a nut for me to crack, which seven years before I had not thought of.

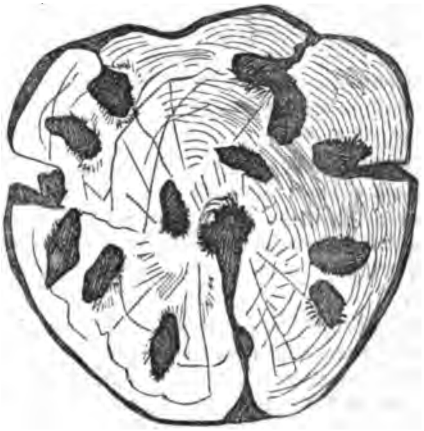
With the help of my friends I now obtained a situation upon the city night watch, where by watching when a hard-laboring man needs rest, and doing a hard day's work every day, I managed to earn sometimes as high as the $15 or $20 per week, spoken of in your paper as one of the rare chances which are seldom met with in the city. I lived in this way for three years, doing two days' work every twenty-four hours, with occasionally a fit of sickness, and some of my family sick much of the time. The doctors informed me that if I wanted to save my wife or children I must remove them to the country. Here I was in a fix! What! go into the country and work on a farm! But the welfare of my family was at stake, and something must be done. I had managed to lay by $550, and with that I came to the country, purchased a farm of 140 acres for $1000, with good substantial buildings, mostly new, paying $500 down, and experimenting upon the mortgage system for the balance. Here I took my family in 1853, hired a man, and returned to the city myself, where by incessant labor night and day, and a little speculation for one year, I managed to use myself about up, and earn $600, with which I purchased young stock and farming tools, paid $300 more towards my farm, took up the mortgage and gave my note for the $200 remaining. I then went to work upon my farm, completely satisfied with strivin for independence in Boston. Although it was mostly new work for me, still with the advice of my neighbors, and occasional hints from your paper, and a few books which I read eagerly, I get along very well. If I have occasionally a hard lift, or a hard day's work here, I can remember hundreds such during my *independent city life*.

All that I have to say in conclusion is, that I have at last overtaken independence, not in Boston or any other city, but in the blessed country, in the most honorable, healthy and natural occupation of man. I have now paid my debts, and am at last a free man.

Benjamin F. Mitchell.

Mt. Vernonville, Me.

THE APPLE TREE BORER.



We heard many complaints last year of the ravages of the apple tree borer. In some cases the injury inflicted was said to be very extensive, and as no remedy appeared to be effectual, the only course seemed to be to let the enemy have its own way. The borer is, indeed, a difficult foe to contend with, as its ravages are committed out of sight. Its eggs are deposited in the bark of the tree, generally, but a short distance from the ground, and there produce a whitish grub, or maggot-shaped progeny, which begins immediately to perforate the tree, pursuing its course along between the bark and the sap wood, or in the sap wood itself, and often passing up so many times as to weaken and finally destroy the tree. In a long article on the subject in the *Ohio Farmer*, we find the following paragraphs:

What is the Borer? The Borer is the larva, or grub which is hatched from the egg, of a beetle, belonging to the family of Buprestidæ, or, Buprestians. The beetle itself is about half an inch long, with brown and white stripes, and flies at night.

When does it lay its Eggs? In the latter part of May, and first part of June, it pierces the bark of the tree with its spear, and deposits its eggs under the bark. This it does near the root of the tree, in perhaps the greater number of cases, especially in small trees. Indeed some writers, whose observations seem to have been confined to one or two classes of operations performed by the beetle, state that it deposits its eggs *only* at the root of the tree. This is a mistake. We have dug them within the last few weeks, from all parts of the trunk, from the ground to the branches; they seem to have a special liking for those parts of the tree which are decayed. On the south-west side of the trees where the sun has scorched the bark or the wood beneath; also where the bark has been bruised by cattle, or in any other way; also where the tree is naturally weak, and shows signs of early withering and death—wherever any or all these inducements are offered, the beetle seems quite ready to accept the invitation, and make its investment. Let no one imagine, therefore, that his trees are free from the borer, because he finds none about the *roots;* let him examine all parts of the trunk carefully, and especially the weak, wounded, or decayed parts. He may find them in any of these portions of the tree.

Various remedies are prescribed for preventing the moth depositing its eggs on the trees, such as strong potash water, soft soap, and strong tobacco water, &c.; but when it is remembered that the bark of trees, like the human skin, has a very important function to perform, we believe that any thick adhesive substance, like whitewash or clay, is always productive of far more harm than good.

As the borer penetrates the tree, he throws out the chips or borings which he has made—these may be seen and his entrance found, when, with a wire fitted for the purpose, he may, in most cases, be destroyed. But a careful observer may detect the spot where the egg is deposited, even before a chip has fallen, and it is then an easy matter to destroy the eggs. This watchfulness, after all, must be the chief reliance of the farmer.

The engraving above, illustrating the ravages of the borer, is only one of a number we have preserved. It shows how destructive they sometimes become.

Every Family should have an Agricultural Paper.—It is worth more than it costs simply for educational purposes. Parents have hardly a right to deprive their families of its advantages in these times. Children will learn more, as they go to and from school, or drive the cows to pasture, or pick berries by the way, if their observation is quickened, by what they hear their parents read or talk over from the agricultural papers; and when they form habits of reading for themselves, such reading is both safe and useful. Reader, if your neighbor has no agricultural paper, persuade him to take one. Even if he is poor, he can better afford to take one than to do without it; for if he takes one, his children will be likely to be better off—to make a good home for themselves, and it may be for him in old age. Not all will have farms; but all will need to know something of the garden and the orchard at least; and we advise no parent, who feels that he may sometime be dependent upon his children, to bring them up without the means of instruction in rural economy. It should be regarded as essential in the education of any child, male or female.

THE BIRDS.

To Hon. Charles L. Flint,

SECRETARY OF THE MASSACHUSETTS BOARD OF AGRICULTURE.

Sir:—While fitting my corn-grounds to-day, and listening to the song of the prophetic "Planting-bird," your issued circular concerning *birds* came up to mind, and for which please to accept my grateful thanks. The accompanying verses followed my thoughts, and I take the liberty to forward them to you, hoping they will meet some answering chord in your breast.

BY THE "PEASANT BARD."

Dear Sir:—I read your proclamation
With pleasurable admiration.
Ye printers, speed it o'er the nation!
May ye who read it,
Feel under sacred obligation,
When read, to heed it!

The birds! the birds!—what man may know
The vast amount of good they do?
E'en the poor bann'd and bandit crow—
(Writ calls him raven)—
Once fed a prophet, long ago,
By will of Heaven.

Now-days crows pull some corn, 'tis true;
They love it; so do I and you;
But grubs and worms they likewise view
With mouths that "water,"
And wage upon the vermin crew
Unflinching slaughter.

Please keep before the people's eyes
This truth, of every bird that flies:—
Far more of good than evil lies
To their account;
The evil's small; no money buys
The good amount.

How oft I've quit my toil, and run
To see what meant the "slaughtering gun;"
And if I found some valiant son
Of blood and Mars
Shot birds, his shirt-tail flag was one
Of "*stripes*," not "stars."

What songs with those of birds can vie?
From the bright gold-finch that on high
Swings its wee hammock in the sky,
To the dear thing
That nestles where the mosses lie,
And grasses spring.

How blessed 'tis to be awaking
To the bird-choir, when day is breaking!
When Phœbus is the west forsaking,
No fine-spun sermon
Like theirs, could o'er my soul be shaking
The dews of Hermon!

This bright May morn, from shaking spray
Yon bird outpours his PLANTING lay,
How sweetly, naively sociably,
As late I heard
A dear-loved friend—God bless her?—say,
And save the bird!

Sir, count me ready to abet
You, in the work to which you're set.
I'm loth to speak or pen a threat,
But loafing rowdy
Who kills birds on my farm, will get
Especial "goudy."

Yours most heartily for the birds,
Josiah D. Canning.

For the New England Farmer.

CHEAP FERTILIZERS.

Mr. Editor:—Reflecting upon the wide spread and rapidly increasing mania for foreign manures, which has taken possession of the farming community of New England, the inquiry has often risen in my mind whether, in the far off search for the means of fertilization, there is not a very considerable sprinkling of humbug, such as developed itself in the morus multicaulis, rohan potato fevers, &c. Can it be that our resources are exhausted, and that we are reduced to such naked poverty in respect of our agricultural operations, that we must needs look to the distant isles of the ocean, or the scientific combinations of the chemist, for the essential elements of fertilization? To answer (as numbers virtually do) this question in the affirmative, implies, as it appears to me, a very imperfect knowledge of the essential conditions of agricultural economy, while the practical application of the theory infers the total neglect, or very partial appropriation, of materials which nature has placed in abundance within our reach. Such neglect is an error which lies at the doors of nearly the whole farming community.

The primary want of the farmer, at least here in the older States, is manure. From whence, and by what methods, can this be most readily obtained, is the problem which he is required to solve. The method now very generally proposed, next to the old established appropriations from the barn, &c., is the purchase of outlying materials, whether in the shape of guano, poudrette, or phosphate of lime, &c. Now is this wise husbandry? I think not. And furthermore, I am fully persuaded that those who adopt this method are chasing an ignis fatuus, while the substantial good, which they want is within their reach, is wasted and lost. With me this rule has all the force of an axiom, namely, that no person should undertake the cultivation of more land than he can enrich sufficiently from his own resources. Or, to state it in another form, there are placed within the reach of the farmer ample materials to fertilize all the land which he can fully and profitably occupy.

It is a law of our existence, which we can neither alter or set aside, that all which we abstract from the earth we must return to it again in some form or other. But although the law itself is absolute, the methods of its fulfilment are essentially within our control. The debt we owe the earth must be paid, but it is for us to determine whether it shall be paid in such a manner as to beautify and adorn its surface, or in such a way as to multiply its pollutions and increase the sum of human suffering. It is ours to determine whether the enormous amount of exuviæ, evolved by our great cities, shall be suffered to stagnate, saturating the ground and becoming the dismal parent of every disease, or returned with a wise hand to the earth in such a manner as shall invigorate the vegetable world and reproduce new forms of beauty and usefulness. It is for us to decide whether the morbid matter of our households shall stagnate in sinks, drains, &c., creating cesspools offensive to every sense, or poured into the open bosom of the soil to multiply all that ministers to our physical comfort. There has been much written and said, of late years, concerning the value of liquid wastes, but, as I am inclined to think, with a very inadequate idea of their intrinsic value, or of the most judicious and effective method of employing them.

Generally, even those who have been most strongly impressed with the importance of liquid wastes, have devoted their attention to the discovery of the best absorbents, with a view to their application to the earth in a solid form. And herein I think they have, to some extent, fallen into error. As compared with the old wasteful habits of discharging tons of liquid refuse, upon a few wheelbarrow loads of loam. through the sink, or pouring it into some inaccessible stone pit, their efforts are entitled to high praise as valuable improvements; but as contrasted with their immediate application to the soil, in a liquid state, whenever this is practicable, they must still be pronounced rude and imperfect.

Liquid manures are vastly more efficacious than solids in their influence upon vegetation, and the reason for this must, we should suppose, appear obvious to all who give the subject a moment's thought. Liquids are already in the condition which solids must assume before they can become the food of plants. Nothing can become food for plants except in a state of solution, and liquids are exempt from the waste from atmospheric influence which takes place with solids. A very simple experiment will settle the matter satisfactorily. Let any quantity of solid manure be steeped fully in water, and the solution applied either to a garden, or grass, and the same quantity be applied to another piece of equal size, in a solid form, and the effects of the former will be to the latter as three to one.

If I have not already trespassed on your patience, perhaps I cannot better illustrate these views than by the relation of some experiments of mine made during the last three or four years upon this subject. In the early part of my farming experience I was much perplexed with the general, and occasionally with the total, inefficacy of solid manures when applied as a top-dressing to grass land. Keeping no team,. and not being in a condition to expend much for plowing, I looked about for a remedy. I had had some experience of the powers of liquid manures applied around fruit trees and determined to test them in relation to grass. I procured a convenient vessel for the purpose and caused every species of waste liquid to be thrown into it, and once or twice a day spread it methodically upon my land. The piece I selected was good land, but so exhausted by long cropping that the year previous I hardly considered it worth mowing. Now for the results. The next season the hay on that piece was more than quadrupled. I then began to put my ashes into the same receptacle and commenced a regular course of action, extending from the last of July to the last of May.

In this way, without the loss of an hour's time, or a cent of outlay, I have produced results which could not be wrought by thirty horse loads of solid manure accompanied by days or even weeks of severe labor. In this way I can manure in the most effectual manner upwards of an acre and my land thus treated will produce three ton to the acre, although it has been in grass for teen years, and without addition of seed.—This method, of course, has its limitations. It would not be available in the case of lands lying distant from the house; but for those immediately contiguous I say confidently that it cannot be excelled. Every housekeeper of five persons produces annually several tons of this material, and those who understandingly avail themselves of this powerful resource will find little occasion, it seems to me, to use Bomner's patent, guano, or any other extraneous manure. WM. WHITING.

Pembroke, Mass., 1855.

WHAT DOES IT COST TO FENCE THE COUNTRY?

The amount of capital employed in the construction and repair of fences in the United States, would be deemed fabulous, were not the estimates founded on statistical facts, which admit of no dispute. Burknap, a well known agricultural writer, says:

"Strange as it may seem, the greatest investment in this country, the most costly productions of human industry, is the common fences, which divide the fields from the highways, and separate them from each other. No man dreams that when compared with the outlay for those unpretending monuments of art, our cities and our towns, with all their wealth are left far behind. You will scarcely believe me when I say that the fences of this country cost more than 20 times the amount of specie that is in it."

In Germany, and many other parts of Europe, no fences are seen for miles, either between the highlands and fields, or between the lots occupied by different individuals. In some districts, the boundaries of each proprietor are required by law to be marked by trees, and the owners are compelled to plant fruit and ornamental trees upon the line of highways against their land, at prescribed distances, and kept constantly growing. Public officers, at stated intervals, examine and survey the streets and public ways, and report to the public authorities any failure of compliance with these legal provisions. In some parts of Germany, the highways are lined for miles with rows of fruit trees, bending with fruit over the passing traveller, adding grace and beauty to the landscape, and refreshing him with grateful shade.

There seems to be in this country a mania for fences. Not only are our fields and pastures enclosed, but divisions and subdivisions of our farms are made, and in addition to these, small yards and gardens, close about our buildings, are often multiplied till they mar the whole beauty of the homestead. This is particularly noticeable about old establishments. The first occupant enclosed a small garden, and after it had grown up to trees, he fenced off another for his vegetables. Then, from time to time, a small yard for poultry, another for the calves, another for the house, a barn yard, and so on, not omitting a front yard, follow, until an acre or two of the best part of the farm is cut up like a chequer-board, having neither utility nor beauty to commend it. By and by, the old farm changes hands, and the old rubbish is cleared away, and a sudden and almost magical change occurs in the scene. We see, at once, that system has taken the place of accident and caprice, and good taste has triumphed over conformity to old-fashioned notions of convenience.

We believe that, as a matter of economy, a great change is required in the matter of fences in New England. Fences are for two purposes, *protection* from cattle and sometimes unruly boys, and *shelter* from the wind and cold. In the first place, we believe, that nearly all fences between the highways and our fields, might be dispensed with. But what, then, shall protect us from cattle wandering at large, and from droves passing to market, and to and from pasture?

As to droves of cattle, they are soon to cease. The railroads convey them, nearly all, and if they are still to travel by means of their own locomotives, how much more reasonable would it be to compel their owners to drive them in yokes, or secured by ropes, or otherwise, than to insist that the owners of land shall fence them out a road from the place where they are raised, to the market towns. As to the cows and oxen, kept for use on our farms, they might easily be conducted in the same way to and from their pastures. Our pastures must still be enclosed. There is much rough land that can profitably be used for no other purpose. But the saving, in dispensing with the fences about our fields, would be immense. No amendment of the law of the New England States, generally, we apprehend is necessary. Owners are not now obliged to fence against cattle in the highways, but persons driving or suffering their cattle to run loose in the road, are bound to see that they do no injury. All that is needed is, that public opinion, which rules everything else in our country, should be set right on this subject.

As to *shelter* from the wind and cold, we apprehend that a rail fence or a stone wall around a field, affords but very little. For gardens and fields even in exposed positions, shelter is often necessary, and fences may sometimes be profitably constructed with this view. Generally, however, a judicious planting of belts of pine or hemlock trees, on the northerly and westerly sides of our lots, will be found far more effectual and economical than anything else, except for very small enclosures.

We see many subdivisions of farms, which seem to us worse than useless. Fields are often divided into two, three, five or ten acre lots, which had much better remain in one. This is often done for convenience in fall feeding, so that cattle may be turned into the fields, before the crops are off, in the fall. Our answer to this is, that this whole system of fall feeding on fields is an error. We believe that it is a fair estimate, that a good mowing field will, without being fed at all, keep in grass better for ten years, than it will *five* if annually fed closely, late in autumn. Soft lands are almost ruined by the treading of cattle, and the short bulbous roots of the herds-grass are pulled up and destroyed by the feeding of neat cattle, that are not provided by nature, with teeth enough to cut the grass evenly. It is better economy to feed our cattle at the barn in the autumn, than to allow them thus to injure the crops of future years. We would advise farmers, therefore, rather to remove the division fences which they already have in their fields, to escape the temptation to do what they know to be wrong, than to construct others, for convenience in feeding their cattle in their mowing fields.

If a fair estimate could be made of the actual cost of maintaining our unnecessary fences, and of the waste of valuable wood and timber used about them, so that each farmer should know the amount of his tax annually for this object, we think a great change for the better would soon occur.

THE BATTLE OF THE ANTS.

I was a witness to events of a less peaceful character. One day when I went out to my wood-pile, or rather to my pile of stumps, I observed two large ants, the one red, the other much larger, nearly half an inch long, and black, fiercely contending with one another. Having once got hold they never let go, but struggled and wrestled and rolled on the chips incessantly. Looking farther, I was surprised to find that the chips were covered with such combatants, that it was not a *duellum*, but a *bellum*, a war between two races of ants, the red always pitted against the black, and frequently two red ones to one black. The legions of these Myrmidons covered all the hills and vales in my wood-yard, and the ground was already strewn with the dead and dying, both red and black. It was the only battle-field which I have ever witnessed, the only battle-field I ever trod while the battle was raging; internecine war; the red republicans on the one hand, and the black imperialists on the other. On every side they were engaged in deadly combat, yet without any noise that I could hear, and human soldiers never fought so resolutely. I watched a couple that were fast locked in each other's embraces, in a little sunny valley amid the chips, now at noon-day prepared to fight till the sun went down, or life went out. The smaller red champion had fastened himself like a vise to his adversary's front, and through all the tumblings on that field, never for an instant ceased to gnaw at one of his feelers near the root, having already caused the other to go by the board; while the stronger black one dashed him from side to side, and, as I saw on looking nearer, had already divested him of several of his members. They fought with more pertinacity than bull-dogs. Neither manifested the least disposition to retreat. It was evident that their battle-cry was Conquer or die. In the meanwhile there came along a single red ant on the hill-side of this valley, evidently full of excitement, who either had despatched his foe, or had not yet taken part in the battle; probably the latter, for he had lost none of his limbs; whose mother had charged him to return with his shield or upon it. Or perhaps he was some Achilles, who had nourished his wrath apart, and had now come to avenge or rescue his Patroclus. He saw this unequal combat from afar,—for the blacks were nearly twice the size of the red,—he drew near with rapid pace till he stood on his guard within half an inch of the combatants; then, watching his opportunity, he sprang upon the black warrior, and commenced his operations near the root of his right fore leg, leaving the foe to select among his own members; and so there were three united for life, as if a new kind of attraction had been invented which put all other locks and cements to shame. I should not have wondered by this time to find that they had their respective musical bands stationed on some eminent chip, and playing their national airs the while, to excite the slow and cheer the dying combatants. I was myself excited somewhat even as if they had been men. The more you think of it, the less the difference. And certainly there is not the fight recorded in Concord history, at least, if in the history of America, that will bear a moment's comparison with this, whether for the numbers engaged in it, or for the patriotism and heroism displayed. For numbers and for carnage in was an Austerlitz or Dresden. Concord Fight! Two killed on the patriots' side, and Luther Blanchard wounded? Why here every ant was a Buttrick,—"Fire! for God's sake fire!"—and thousands shared the fate of Davis and Hosmer. There was not one hireling there. I have no doubt that it was a principle they fought for, as much as our ancestors, and not to avoid a three-penny tax on their tea; and the results of this battle will be as important and memorable to those whom it concerns as those of the battle of Bunker Hill, at least.

I took up the chip on which the three I have particularly described were struggling, carried it into my house, and placed it under a tumbler on my window-sill, in order to see the issue. Holding a microscope to the first mentioned red ant, I saw that, though he was assiduously gnawing at the near fore-leg of his enemy, having severed his remaining feeler, his own breast was all torn away, exposing what vitals he had there to the jaws of the black warrior, whose breast-plate was apparently too thick for him to pierce; and the dark carbuncles of the sufferer's eyes shone with ferocity such as war only could excite. They struggled half an hour longer under the tumbler, and when I looked again the black soldier had severed the heads of his foes from their bodies, and their still living heads were hanging on either side of him like ghastly trophies at his saddle bow, still apparently as firmly fastened as ever, and he was endeavoring with feeble struggles, being without feelers and with only the remnant of a leg, and I know not how many other wounds, to divest himself of them; which at length, after half an hour more, he accomplished. I raised the glass, and he went off over the widow-sill in that crippled state. Whether he finally survived that combat, and spent the remainder of his days in some Hotel des Invalides, I do not know; but I thought that his industry would not be worth much thereafter. I never learned which party was victorious, nor the cause of the war; but I felt for the rest of that day as if I had my feelings excited and harrowed by witnessing the struggle, the ferocity and carnage, of a human battle before my door.—*Thoreau's Life in the Woods.*

For the New England Farmer.

THE PROFIT OF FATTENING SWINE.

In the Monthly *Farmer* for April, 1854, there are statements over my signature relative to the profit of fattening swine in New England, together with hints as to the proper mode of conducting the business; and in the following number for May, there is a shorter article, confirming the statements previously made. Since writing those articles, I have further investigated the subject, in order to prove the soundness or otherwise of the views then presented.

On the 21st of December, 1854, I bought four very lean shoats, weighing respectively, 63, 61, 60 and 58 lbs., or in all, 242 lbs., gross live weight. They were placed in warm apartments, consisting of a pen for making compost, and an eating room. The litter made by two horses was daily thrown into the compost pen; also, about every third week, a cord, or two loads of either muck or forest-mould was put into the pen; and clean straw was added, at suitable times, for bedding. The pigs were fed on meal made by grinding ears of corn, or on what is called corn and cob meal, and they were supplied with all the meal they would eat with a good appetite. Immediately after feeding them at a given time, the meal for the next feeding was placed in the bucket, and boiling water was added, and also after awhile the wash of the kitchen, the whole standing in a warm place till the time for feeding, and the meal becoming thoroughly soaked and very much swollen. Whenever a grist of ears of corn was to be carried to mill to be ground for the pigs, the same was accurately measured up in a basket, well known to hold the right quantity of ears, when even full, to make a bushel of shelled corn; and the pigs were charged with each grist at the time it was measured. Entire accuracy was aimed at in keeping the account with the pigs, and I know of no chance for a slip in the accounting.

The business was thus conducted till the 14th of the present month, when the pigs were sold to the butcher for eight cents per pound, dressed,—he charging three dollars for slaughtering the four. Between the dates above named, the pigs consumed seventy-six bushels of corn on the ear, equal to thirty-eight bushels of shelled corn. During this time they manufactured eight cords, or sixteen loads of muck and mould into the first quality of compost, mingling the raw materials well with the horse manure and straw for bedding. They may be accounted with as follows:

825 lbs. of dressed pork, at 8c. per lb.		$66.00
Deduct 76 bu. ears of corn, or 38 bu. corn consumed, at an average price of $1.25 per bu.	$47.50	
Deduct paid for slaughtering	3.00	
" paid for pigs at outset, $3.00	12.00	62.50
Balance over market price of the corn		3.50
Add 8 cords, or 16 loads of raw material manufactured into compost, worth a bu. of corn, or $1.25 per load	20.00	
From which, if you please, deduct the cost of supplying the material, say 50c. per load, which is rather high	8.00	12.00
Profit on four pigs, over and above market value of corn consumed		$15.50

With regard to the price at which the corn is charged to the pigs, I have to say that in January the thirty-eight bushels could have been bought for a dollar per bushel; and at less than a dollar and a quarter as late as March, though now corn is worth more than the price charged the pigs.

It will be found on calculation that these pig gained some over fifteen pounds of net pork fo each bushel of corn consumed; which argue pretty well for the mode of feeding, and for th business of converting corn into pork and compost.

Another year's practice and observation has not disclosed any thing material for me to deduct from the views formerly advanced as to the policy and profit of fattening swine. I still entertain entire confidence in the desirableness of the business, when conducted with system and propriety. Indeed, I have never seen the year in farming when I was not well paid for fattening pigs of a good breed, fairly reckoning their services as manufacturers of fertility for the land. In my judgment, it is sounder practice for the farmer thus to add to his means for making crops and keeping his lands in good heart, than by buying the fashionable concentrated fertilizers of the day, which too often merely stimulate the present crop, and leave the land no better than they found it.

Notwithstanding the great prejudice existing with many persons against the grinding and feeding of the cob with the corn, it is sufficient for my purpose to know, as I do by repeated trials, that corn and cob meal, properly ground and cooked, will make from twelve to sixteen pounds of net pork for each bushel of corn consumed. F. HOLBROOK.

Brattleboro', May 22, 1855.

THE JUJUBE-TREE.—The seeds of this tree were imported a short time since from the south of Europe for experiment in the south. It grows in the form of a shrub, of middle size, bearing a red oval fruit, about as large as olives, inclosing a stone of the same shape. They are sweet, but only eaten among us in the from of a paste. In Algiers the fruit ripens in the month of June, and is much sought after by the inhabitants, who consume large quantities, both fresh and dried, as well as in the form of a delicious paste.

For the New England Farmer.

CHARCOAL DUST.

Mr. Brown:—At one of the agricultural meetings at the State House, last winter, I was much interested by the remarks of the speakers; some new ideas, to me, were advanced, in regard to guano. But I was particularly pleased by the earnestness with which a more careful saving of "home manures" was urged, with which to form a fertilizing basis and furnish an absorbent for the gases. One of the most important agents for these purposes, in my experience, was but slightly alluded to, viz: charcoal dust. If you will permit, I will relate one of my experiments, and its results, with charcoal, and you, of course, will dispose of the statement as you deem proper.

In the winter of 1852 I carted off the top of a high knoll or ridge that extended through a piece of land I had recently purchased. My object was to bring the land into better shape and to put this heretofore barren spot into a state for cultivation. The cutting was from 2 to 6 feet deep, leaving a level plain of about half an acre, which was still elevated above the adjacent lands. The bed of this plat was coarse sand and full of "cobbles." Having on hand a lot of meadow muck, that had been decomposed with shell lime and salt brine, I took of this 40 cart loads, 10 loads sandy loam, 2½ cords of charcoal dust, and threw into a heap. Into this I put 15 barrels of liquid from gas works, working over the mass and mixing thoroughly. After standing four weeks, I distributed the heap evenly as possible over my piece. Then plowed and cross-plowed, to the depth of ten inches, and harrowed until the whole was well mixed with the sand bed, and sowed to oats, with timothy and clover, first week in June. The oats came up finely, grew stout, but were injured by rust. The grass was a poor catch and I again sowed and raked in seed in the fall. The following season, where the seed took from the first sowing, I cut a heavy crop of grass.

Last spring the grass had got well catched, started early, and was marked by its dark green and fresh appearance all through the dry season. I took off two crops of grass, both averaging 4 tons to the acre. During all the dry weather this spot did not seem to suffer in the least by drought, notwithstanding its high altitude, and while on low grounds in the vicinity vegetation was completely dried up. This good result I attributed mainly to the coal dust, for wherever I turned up the earth, on this piece, and found the greatest mass of coal, there I found the most moisture, and the grass roots seemed to possess a particular fondness to twine among it.

My faith in the utility of coal dust, for dry lands, has been strengthened also, by using it in setting trees. I have an elevated and sandy place, where I am desirous to grow a "belt" of evergreens, and for two successive years, after my utmost skill in setting, the trees would die out wholly or in part, seemingly from the effects of the hot, dry seasons. Last spring I again set out 50 Norway spruce, fir balsam, white pine, &c., dug large holes, and in part mixed in with the loam two bushels charcoal, bringing a portion of the coal near the roots of the trees. I used equal care in setting, but in the fall almost every tree, where no coal was put, was dead or nearly so, dried up. While every tree to which I applied the dust was alive and vigorous. I have also used charcoal in setting fruit trees, hedges, &c., in dry places, and am satisfied with the result. I am sorry that a more free use of charcoal dust recently, in this vicinity, has advanced the price of the article. Our colliers now charge $5 per cord, but think it will pay even at that price. A. R.

Lowell, March 1.

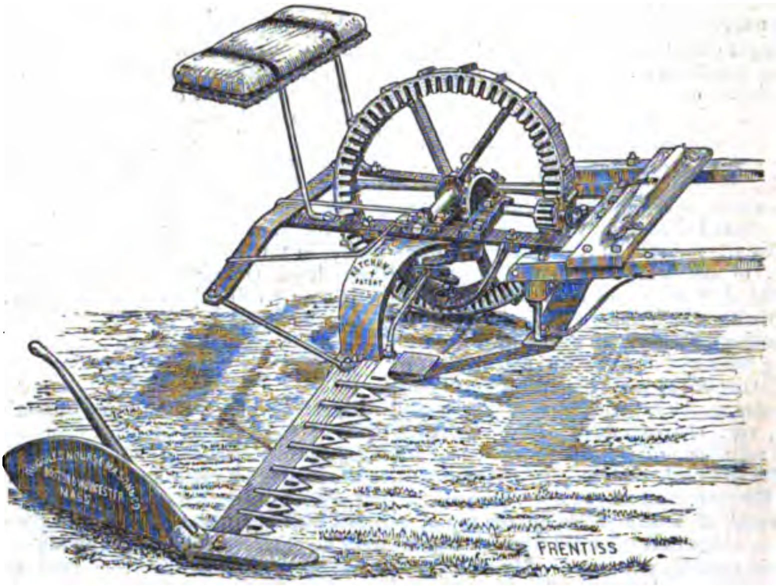
A HINT.

Friend Adams:—Permit me through the columns of your paper, to urge upon my brother farmers, the importance of turning their attention to the raising of roots more extensively for the purpose of wintering stock. The scarcity and consequent high price of hay, and grain, if there were no other reason, should induce every man in the state who has an acre of land or even less, to set apart a portion of it for that particular purpose.

I wish more especially at the present time, to call the attention of that class to the subject who do but little farming and who keep but a single cow or horse. It matters not whether he styles himself a farmer, mechanic, or merchant, or whether he belongs to any other class, he has a common interest with those who till the soil, and should co-operate with them.

I would propose to all such to plant one-eight of an acre of carrots, as soon as the ground is in a suitable condition to receive the seed, that is as soon as it is warm and dry. The labor of cultivation will be trifling and the amount of carrots if a fair yield, will be a hundred bushels or more. This would give a cow a half bushel per day—two hundred days or more than half a year. I have no doubt but the animal would be grateful, and the owner find his reward, I do not ask who will try it, but I do ask who will fail to do so.—*Granite Farmer.*

A Fact in regard to Drilling Wheat.—We wish to record a fact which seems rather remarkable in regard to drilling in wheat. We sowed about nine acres last fall, with one of Ross' Drills, and some three acres among corn, with a three shovel cultivator. Of the former, we have not noticed a single plant heaved out with the frost during the winter, though a part of it was sown on the poorest clay land on the farm, with but one plowing. It was sown immediately before that among the corn, and presented in the early winter a decidedly poor prospect. But that sown among corn is badly killed with winter, many plants lying on top the ground, dead. In some places, it seems almost entirely ruined. It is the same kind of wheat as that which was drilled. Our readers may draw their own conclusions.—*Indiana Farmer.*



KETCHUM'S ONE HORSE MOWING MACHINE.

Mowing machines were introduced, and used in various parts of New England last year, and with varied success. Some being highly pleased with the work which they were made to perform, while others were disappointed in the results, and a few abandoned them as being utterly incapable of conferring any advantage to the farmer over the old mode of cutting with the scythe.

Our own belief has always been, that the machine would be so improved as to come into general use, and prove highly serviceable. This opinion has been greatly strengthened recently, by an examination of two or three different kinds of machines, and noticing obvious improvements over those of the same manufacturer presented last year.

The cut at the head of this article represents one of *Ketchum's* one horse mowers—it cuts a swath *three* feet wide, is much lighter than the two horse, and if it proves well, will become a popular, and a great labor-saving machine. Messrs. *Ruggles, Nourse, Mason & Co.*, Proprietors of the right for New England, say, in a circular they have just issued, that they are constructing the entire frame work and finger-bar of wrought iron instead of wood (as represented in the cut above) which adds much to the strength and permanence of the machine, while the weight is reduced about 200 lbs. Again, they say, "We *warrant* the two horse machine capable of cutting and spreading, with one span of horses and driver, from 10 to 15 acres per day of *any kind of grass, heavy or light, lodged or standing;* and do it as well as is done with a scythe by the best mowers."

Not having used the mower ourself, we prefer giving the testimony of others rather than express opinions of our own.

William S. Lincoln, Esq., of Worcester, and one of the best farmers in the Commonwealth, wrote last year as follows:

Worcester, Aug., 1854.

Messrs. Ruggles, Nourse, Mason & Co.:—Gents.,—Agreeable to your request I return to you the One Horse Mowing Machine left with me for trial, and in doing so cannot refrain from giving my voluntary testimony to its great value.

The machine was used by me to cut over about 30 acres of interval land. The grass was in many places heavy and lodged, the bottom fine, soft and very thick. In some few places it was a light crop of fine flexible dried grass, which yielded before the scythe. But whether in heavy thick bottom or badly lodged, or in the places of lighter yield, it cut alike well and close—closer indeed than I deemed desirable, or deem well for the land.

I apprehended difficulties in the operation of the machine from the peculiar character of the surface of the land. It is an irrigated meadow, not graded, intersected by ditches of different width and depth, running in different directions, used for carrying on to its surface the waters of the "Blackstone." Yet notwithstanding these obstructions the mowing was done to my entire satisfaction.

I may mention perhaps that I used different horses at different periods of the trial, and am satisfied that a good horse of between 10 and 1100 is sufficiently heavy to operate it.

After all I have said, perhaps you will find the best *evidence* of my perfect satisfaction with the machine in the order for one which I now give you. At any rate, it is the best test I can offer of my entire satisfaction with its operation, and of my sincerity in the above.

Yours truly,
WILLIAM S. LINCOLN.

In relation to the two horse mower, Gen. SUTTON, of Salem, a farmer whom no one can visit without receiving material benefit, says:—

"I can only say that your mower operated to my entire satisfaction, and I have no hesitation in recommending its use to any farmer who has a large quantity of hay to cut.

I worked it altogether with oxen, upon ground of various surface, and found it to be eminently a labor-saving machine, economical and profitable.

I am with respect, truly yours,
WM. SUTTON."

Numerous other certificates are given from persons competent to judge of the merits of the mower. Those not much accustomed to machines, should not be discouraged if it does not come fully up to their expectations upon the first trial; a little *oil* and a little *patience* may bring every thing right at the second trial.

The manufacturers state that the mowers they are constructing this year are made from entirely new patterns, and that they are simplified and improved in many ways. They add to their circular the following schedule of sizes and prices:

We construct three sizes, as follows:—

One horse Mower, 3 feet cut,.......Price,	$90 00
No. 1, Two horse Mower, 4 feet cut..............	100 00
" 2, Two horse Mower, 4 ft. 8 in. cut,..........	115 00
" 1, Two horse Mower and Reaper combiued..	120 00
" 2, Two horse Mower aud Reaper combined..	180 00

Extras to each Machine,—1 set of Cutters, 2 Cutters, 2 Fingers, and Wrench. Machines delivered at Boston or Worcester.

RUGGLES, NOURSE, MASON & Co.

For the New England Farmer.

TO GET POOR LAND INTO GRASS.

MR. EDITOR:—Will you allow me to make a few inquiries through your valuable paper? I have a piece of land, the soil a sandy loam and somewhat exhausted. I wish to reclaim it to grass as soon as possible, and not having much manure, I have thought of the following plan, viz:—plow the land in August, give it a thorough dressing with plaster, or plaster and ashes, sow to winter rye, with about ten or twelve pounds of clover to the acre. When the rye is taken off, plow it thoroughly, and the next spring manure with a compost of swamp muck and lime, at the rate of about one cask of lime to five loads of muck, and twenty-five loads to the acre; plant with an early kind of corn, and as soon as the corn can be harvested, plow again and sow down to grass. Any remarks on the above plan, especially as to the quantity of lime in the compost, the quantity of plaster to be applied to the acre, and as to the probability of getting a growth of clover, would be very gratefully received by a

Amherst, N. H., 1855. NEW BEGINNER.

REMARKS.—We think your experiment would be a judicious one. The quantity of lime you suggest is enough for one application, though many persons use a much larger amount. We would suggest that you cultivate the corn crop flat, instead of in hills, and at the third hoeing sow the grass seed and rake it in; then you have your field stocked down. The grass seed, being shaded by the corn, is much more likely to come up than when exposed to the full rays of the sun.

NUTRITIVE QUALITIES OF FOOD.

The excessive dearness of all kinds of food should induce not only habits of economy in its use, but should lead to the adoption of those articles of food for the table which are the most nutritious in their quality, and which, fortunately for the laboring classes, are the cheapest in price. Many persons go on in the old way, when food was plentiful and cheap, and use what costs them nearly four times the price of better and more wholesome articles of diet, considering the nutriment which they respectively supply. The comparative quantities of nutriment contained in the principal articles used as food have been tested by strict chemical analyses, and some very excellent books on the subject have been published, and ought to be studied in all communities where the laboring population predominate. It would teach them to discriminate between the various articles of food, and be the means of introducing more generally among them the use of articles of a much better quality, more wholesome, and far better adapted to supply the wastes of the substance of the body caused by daily toil.

The following results of such analyses, which we find in the *Baltimore Patriot*, derived from the best scientific sources, commend themselves to general attention for their value. It will be seen here what articles are the most nutritious. White beans, corn meal, wheat flour, barley meal, and rice are shown to be the very best kinds of food, and these are the very kinds which are the cheapest to purchase and use. Potatoes, which are enormous in price, lose more than three-fourths of their substance, and are the dearest kind of food which can be used.—*Philadelphia Ledger.*

"It is proper to state that the articles were all reduced to a perfectly dry state by evaporating the water they contained, and then subjecting them to careful chemical analysis. The following table, divided into three parts, animal food, vegetable food and fruit, shows the quantity of nutritive matter and of water in each article, and, by comparing one article with another, shows the comparative value of each as food. But as all the elements of nutrition are not of the same value, it must not be inferred that an article that contains a large quantity of starch, for example, is more nutritious than one that contains a small quantity of animal fibrin and no starch.

Both starch and animal fibrin are elements of nutrition, but they are appropriated by the animal economy to very different purposes; the former to the formation of fat and animal heat, and the latter to the supply of all the tissues, bone, muscle, &c. The two elements are required in very different proportions, also, in forming food, and hence bread (though "men cannot live upon bread alone,") with its 15lbs. of vegeto-animal matter (gluten,) and its 50lbs. of starch of 35 lbs. of water, forms a composition of nutriment more nearly complete than any other substance. Starch is required in a much larger proportion than gluten in vegetable nutriment, and it is furnished abundantly in all kinds of grain, beans and potatoes. If potatoes contained a small proportion of gluten, say 5 lbs. to the 100 lbs., then their nutritive property would compare with that of wheat flour in the proportion of 22½ to 90. That is, potatoes would be worth just one quarter as much by weight as wheat flour. But as they contain no gluten nor caseine, and very little albumen, consequently little if any of the elements of proteine, a larger quantity of animal food of some kind is required to be combined with them than with bread, in the formation of food.

ANIMAL FOOD.

100 pounds	fresh	Beef con.,	26	lbs. nut.	mat.,	74	lbs. water.
"	"	Veal,	25	"	"	75	"
"	"	Mutton,	29	"	"	71	"
"	"	Pork,	24	"	"	76	"
"	"	Fowls,	26 to 30		"	70 to 74	"
"	"	Fish,	18 to 20		"	80 to 82	"
"	"	Milk,	7½	"	"	92½	"
"	"	white of Egg,	14	"	"	86	"

VEGETABLE SUBSTANCES.

100 pounds	Wheat Flour c.	90	lbs. nut.	mat.,	10	lbs. water.
"	Corn Meal,	91	"	"	9	"
"	Rice,	86	"	"	14	"
"	Barley Meal,	88	"	"	12	"
"	Rye Flour,	79	"	"	21	"
"	Oat Meal,	74	"	"	26	"
"	Potatoes,	22½	"	"	77½	"
"	White Beans,	95	"	"	5	"
"	Carrots,	10	"	"	90	"
"	Turnips,	4½	"	"	95½	"
"	Cabbage,	7½	"	"	92½	"
"	Beets,	15	"	"	85	"

FRUITS.

100 pounds	Strawberries c.	10	lbs. nut.	mat.,	90	lbs. water.
"	Pears,	16	"	"	84	"
"	Apples,	17	"	"	83	"
"	Cherries,	25	"	"	75	"
"	Plums,	29	"	"	71	"
"	Apricots,	26	"	"	74	"
"	Peaches,	20	"	"	80	"
"	Grapes,	27	"	"	73	"
"	Melons,	3	"	"	97	"
"	Cucumbers,	2½	"	"	97½	"

N. B. It must be borne in mind that the animal substances were all clear of bone and fresh, the vegetable fresh and deprived of skins, &c., and the fruits fresh and perfect. It will be perceived that *mutton* is the most *nutritious*, as it is acknowledged on all hands to be the most wholesome of all animal food; that while beans are the most nutritious of all vegetable food, and plums are the most nutritious of all fruits; that fish is the least nutritious of solid animal food; turnips the least so of all vegetables, and cucumbers the least nutritious of all fruits.

For the New England Farmer.

LETTER FROM MR. FRENCH.

Washington City in Spring-time—A Glimpse of the Commissioner of Public Buildings at Home—City Improvements—Capitol—Patent Office—A Virginian's Opinion of the Yankees—Deep Plowing—Mr. Claggett's Farm—Seventeen Year Locusts—Fruit Prospects.

City of Washington, D. C.,
May 12th, 1855.

DEAR READER:—Washington is a lovely city in the spring-time, especially when not beclouded by the session of Congress. Having given in the *Farmer* some not very attractive pictures of the market, and the agricultural specimens in the streets, I feel now, when the leaves are already developed in full beauty, and the roses are beginning to unfold their buds, and the newly-mown lawns of the Capitol grounds are looking soft and green, like carpets of velvet—I feel now, when at the North a cold storm of mingled rain and snow has just passed by, as if I owed an apology to this more Southern climate, for any expressions of disrespect I may have been "left" to drop in relation to it. Forgetting, then the donkeys and darkeys, the scorching heat of last July, with the thermometer at 90 day and night, for most of the month, the crisped leaves and seared grass of that season of drought, let us take a more agreeable view than either summer or winter can afford us, of Washington in the spring. Looking out at this moment, from the library of a friend on Capitol Hill, into his garden at the rear of the house, I behold an arbor constructed with his own hand, completely covered with roses and honeysuckles and the Washington bower, intertwining their long pliant branches, and throwing out at the top a thousand waving shoots tipped with the bursting buds. Close by is a fountain, throwing high into the air a jet of pure water, sparkling in the light of the setting sun, and falling with a cool and pattering sound into the pool about it, while the children, playing upon the brink, now are watching the gold-fish and now pursuing the humming-birds; and my friend and brother, sitting on a rustic seat near by, with book in hand, finds little time for reading, but much for the enjoyment of the work of his own hands, and of *hers*, the divinity whose taste has directed the planting of the flowers, the training of the vines, and the wanderings of the walks among them. This is a rational happiness, the enjoyment of nature herself, which one may find if he have the taste for it, without unreasonable cost, in the immediate neighborhood of the Capitol itself.

The growth of trees, vines and shrubbery, is much more rapid here than in New England, so that one may create with nature's ready aid, a wilderness of foliage and flowers under this warmer sun, while at the North, his trees planted at the same time would have scarcely recovered from the shock of transplanting.

Washington now numbers about fifty thousand inhabitants. Its "magnificent distances" are fast filling up with dwellings and public buildings. The new wings of the Capitol, and the new dome to be added, will make it the most magnificent edifice upon the continent. The Patent office,built of white marble upon a basement of granite, is a structure of which any nation might be proud. The broad grounds of the Smithsonian Institution, laid out and planted under the direction of the lamented Downing, and Lafayette Square in front of the President's mansion, the work of the same master, are constantly proclaiming the triumphs of his art and genius. "The circle" of about one and a half acres, near Georgetown, and the triangular spaces laid out by George Washington himself, in his original plan of the city, are now undergoing improvement and will be soon rescued from "the reign of the bare and the bald," and made green and beautiful. More than five thousand trees have been planted the last and present seasons upon the public streets, under the direction of the Commissioner of Public Buildings and Grounds, who is no other than the friend and brother before mentioned. Verily, there are pleasant views that we may take of this goodly city, and no one can fail to be impressed with the foresight and wisdom and faith of the Father of his Country, as the beauty and symmetry in the plan of the town generally unfolds itself to meet the increasing wants of the government and the citizens.

But, it is not in the city alone, that improvement is going on. Upon all the principal thoroughfares into the country, the value of land for its products is beginning to be appreciated. A thorough and intelligent cultivation is finding a profit where shallow plowing and shallow plowmen could not find a subsistence. I have before given you a sketch of one of these improved farms, owned by Mr. Morrison, a native of New Hampshire. The Yankees are doing wonders both in this region and many parts of Virginia, upon what were considered worn out lands. A Virginia gentlemen whom I met recently in a railroad car, informed me that in his own neighborhood, Northern men were setting a valuable example, and that he himself had adopted the new idea of deep plowing, and was getting eight barrels or forty bushels of corn, where he formerly got but three or four barrels. He said a few years ago a negro and a man were the only force used to plow for corn, the plow being run from two to three inches deep. He had been travelling in New England, and spoke highly in praise of the energy and industry of the people, which he thought on Virginia soil would make them independent. He said he thought one free laborer at the North performed about three times as much work as a slave!

Good husbandry and energetic farming, are, however, not limited to New England men. I yesterday accepted an invitation from a leading merchant of this city, Mr. Darius Claggett, to visit his farm on the Rockville plank road, about five miles from Washington. His family reside on the farm in summer, and Mr. Claggett himself comes to his city business every day except Sunday and Friday.

I have rarely seen a place which gave so decided evidence of good taste and good judgment, and withal, of such persevering faith in our good mother earth, as this. Six years ago Mr. Claggett purchased three hundred acres of land, mostly covered with a small growth of yellow pine entirely unimproved. In this short period of time he has cleared and put under the plow one hundred and fifty acres, a large part of which is covered with a choice variety of fruit trees of all descriptions that the climate will produce. His trees appear to be judiciously selected, carefully pruned and protected, and making a growth far beyond what I have ever seen at the North. He has already 2500 apple trees, 450 pears, 1600 peaches, 150 apricots and as many plums.

The apple trees are set forty feet apart, and the land among them planted with wheat in drills, with bare strips of a few feet in width along the rows. They are making generally a better growth than we get in New Hampshire. I saw upon them marks of our old enemy, the borer, and far worse marks of the seventeen-year-locusts of 1852. According to the theory, they will not be here again until 1869, by which time our friend will, it is hoped, have been paid by the fruit of his trees for all his labors. He said that when the locusts had possession of his trees, he could scrape from the body of a newly-set apple tree a pint of the insects at once! His pear trees, however, far excel his apples. Indeed, I have never seen so large a number of pears together, that appeared so healthy and as we say at home, so *thrifty* as these. I saw no sign of the sap-blight or winter-killing, but the trees seemed full of life, and many of them were full of fruit already set. The peach orchard is already set for a large crop. In 1853, Mr. C. sent to the market 700 baskets of peaches, and his crop this year will probably far exceed that quantity. He has this year in grass, about 20 acres, in wheat about the same, in corn about 40 acres, and in potatoes. about 12 acres besides large tracts of vegetables and small fruits, among the rest two acres of strawberries. He manures all his crops with Peruvian guano, 300 pounds to the acre, plowed in, and thinks this will insure him abundant crops.

Mr. Claggett has been for thirty years in his counting-room, and never owned a farm before. Indeed he informed me that he never saw a plow run in his life until he saw his own, on this farm. His labor is performed by a foreman, a native of the district, and six laborers, mostly Irish, with two yoke of oxen and three horses, a force by the way, entirely insufficient to perform such mighty works on New England soil. I did not see the foreman, but cannot help suspecting that he is a farmer of the right stamp. I have good faith in the success of any intelligent man who will read and inquire, and spend his money freely that he may produce satisfactory results in agriculture. Still it is a business not learned in a day, and I have no reason to doubt the correctness of our friend's remark, that "Farmer Claggett owes merchant Claggett a good deal of money."

Such men, however, are public benefactors. They inspire others with faith in labor, and faith in the heritage which a good God has given us, and if they expend money in the experiments, they derive from them the rational satisfaction that they leave the earth better than they found it. H. F. FRENCH.

For the New England Farmer.

SMALL POTATOES.

MR. EDITOR:—We cannot be surprised at the different theories and conclusions among men, in matters of religion, law, politics, &c., for reasons that selfish aims and party ends are sometimes objects to be carried without reference to virtue or beneficial objects for public good. But in matters of the mechanic arts and of farming there is *but one right way*, to be profitably pursued, however much *practice* may vary. I respectfully beg to differ widely from your correspondent, S. P., and also your own "remarks" in encouraging the planting of "small potatoes." *Experience* has been my schoolmaster. "S. P." does not say, when the "large potatoes" were planted, that gave his father "100 bushels not large enough for the table," whether the season was one of much *wet* or extreme *drought*. *Nature* must have been exceedingly harmonious on the one hand, or over abundant on the other, to have given 100 bushels all *small potatoes*. I should attribute to other causes rather than "large" seed, and then the singular metamorphoses of the large potatoes turning into small ones, and the small ones to become large again, shows the original large seed retained its vitality, which had been acted upon by wet or drought the first season.

Now the farmer who planted "large potatoes" without cutting (at the time the "robin's egg" size were planted,) over-seeded to excess. While 5 stocks to a hill is a full compliment, some 20 to 30 sprouts came from a large potatoe. What but small vines and smaller potatoes could be expected from such a crowded hill? Why is a large potato "an artificial growth" any more than a small in the same hill with the same advantages to grow? So S. P. says "the native growth of the tuber is small." This we admit if he refers to the ball seed, which requires 3 or 4 years to mature. The farmer wants the potatoe fully developed to practice upon. He wants neither seed from the ball or small potatoes. It would seem to be a more safe doctrine to plant the largest, best developed seed. In planting small potatoes these pertinent questions arise. Do you winnow out your small wheat, barley, rye, oats for seed? Do you sow inferior grass seed and clover? Do you save your small melons, cucumbers, squashes and pumpkins, for seed? Do you trace up your small ears of corn or take the tips for seed? Do you set out small beets, carrots and the like, to gather seeds from? Do you go into the nursery and select small, unpromising trees for your orchard? Do you save your smallest calves, pigs, lambs or fowls, to propagate from? I need not multiply the chances which would seem to be a violation of the common rules of progress. Every good farmer aims to go ahead.

Again permit me to refer to the Long Island farmers, who plant their largest potatoes and cut off the seed end, to avoid small ones. In digging time no one would endorse the "depreciation theory" of planting "small potatoes" if they could witness the large mercers thrown out with scarcely any small ones.

As before stated, I hope fair tests will be tried. Several years experience satisfied me, when sorting for the bins, half being small, that "small potatoes" returned small potatoes. Hence I am at issue, even if alone, with all small potatoe advocates. Respectfully, H. POOR.

Brooklyn, L. I., May 19.

For the New England Farmer.

LABELLING FRUIT TREES.

Fruit trees should be distinctly labelled at the time they are planted out, and when intended for an orchard, or where there are several together, a plan should be made of them, with the name of the variety of each tree plainly written against it; then, in case a label is lost by accident, or otherwise, by referring to the plan the variety is at once ascertained. Much confusion and perplexity results from a neglect of this subject; fruit of the first quality is often exhibited from grafted or budded trees, the name of which is unknown to the owner, although the variety may be quite common in many localities.

Nurserymen should be exceedingly careful to correctly label their trees, as it is a disappointment, as well as loss, to wait patiently several years for a tree to bear, and then to have it produce a different kind from what it was purchased for; and should scions be taken from it for propagation previous to bearing, the evil might be much extended.

Scions should be taken from trees which we are absolutely certain produce the kinds their name indicates; the labels put on and kept on, so long as any of the bundle remain. When scions are obtained from others it should be from men in whom we can place the most implicit confidence, and then mistakes will sometimes occur when we have used the utmost vigilance; but to make as few as possible should be the constant aim of all propagators of fruit. O. V. HILLS.

Leominster, May, 1855.

For the New England Farmer.

Mr. Editor:—My husband has for several years been a subscriber to the *New England Farmer*, and I am a constant reader of its pages. I have taken the liberty to send you a copy of my scribbling on "Spring." It is a homely production, I am well aware; but if you think it is not too late in the season, and is any way worth a place in the corner of your paper, I shall be glad to see it published.

Yours respectfully, Myra Myrtle.

SPRING.

The poets they sing of the beauty of Spring,
But they don't sing you half of the story;
The poets they tell of the flowers in the dell,
But they don't tell you half of Spring's glory.

Why! each old granny goose and the hens on the roost
Know full well when the Spring time is coming;
So each builds her a nest, and then lays like "possessed,"
Sits, and soon with her young is seen running.

There's the litters of pigs, dancing gallopade jigs
To music of their own creating;
There's the old turkey gob, strutting round like a "snob,"
On his flocks of young long-legs is waiting.

Then the calves in the stable, fat and plump for the table,
Are a part of the beauties of Spring;
And the flocks of young lambs, frisking after their dams,
Ah! their bleatings make music again.

The wild geese flying o'er to some far northern shore,
Crying on, on, as onward they fly;
The old mother hen's clucks and the quacking of ducks
Is music to both you and I.

Yes, the poets they sing of the beauties of Spring,
But they don't sing you half of the story;
The poets they tell of the flowers in the dell,
But they don't tell you half of Spring's glory.

Somerset, Mass.

For the New England Farmer.

THINGS IN WISCONSIN.

Mr. Editor:—A communication from my pen appeared in the columns of a late number of your paper, the result of which is that the last two mails have brought me about *fifty* letters of inquiry, all requesting information of a character so similar, that, with your permission, I will give a general reply through the medium of your paper. I design to be as brief as possible in replying to the questions proposed, and my communication must necessarily appear somewhat incoherent, except to those particularly interested.

Land for sale here is government land, and can be purchased at a distance of from 2 to 10 miles from the river at $1.00 an acre. No credit is given on land, and *gold* only taken in payment. The most that one purchaser can take up at that price is 320 acres, and he must then make oath that he wants it for actual occupation. Persons who have not cash to pay down, can pre-empt 160 acres, or less, and by commencing improvements upon it within 30 days, can secure it for one year. If not paid for at the end of the year, it is subject to entry by any other person. Oak openings are tracts of land sparsely covered with timber, and free from under brush. Prairie and timber land, in juxtaposition, can be found in large quantities. There is plenty of wood for fuel and fences. No coal has yet been discovered in this vicinity. The soil is a dark loam, perfectly free from stones, easy of cultivation, and adapted to wheat, corn, rye, oats, barley, potatoes, &c. Fruit, of all kinds, will grow here as well as in any part of New England, if we except the peach, which has not yet, to my knowledge, been tried.

All the surplus produce raised by the farmer can be sold at his door, and is consumed by immigrants and laborers in the pineries. There are no houses ready for the reception of immigrants. Two men, in two or three days, will throw up a log cabin, or a board shanty, that will be tolerably comfortable, and such are in general use in all new countries. Lumber can be obtained at $22 a $25 in the yard, and for $14 a $16 at the pineries on the Black and Chippewa rivers. The country is generally healthy. Most of the diseases are connected, more or less, with biliary derangement—some cases of fever and ague, but healthy immigrants are seldom troubled with it. There is no wet, marshy land in this vicinity, or in this part of the State. We have no parks or commons laid out in our town. He who piled up the hills and scooped out the valleys of this locality, has forever rendered all such places unnecessary. The current of the river, at this place, is about four knots an hour.

Without particularizing the prices of provisions, it may be safely calculated that the price of living here is 50 per cent cheaper than in New England. Stoves can be purchased here at about eastern prices, adding cost of transportation.

Oxen, measuring 6½ feet, are worth from $110 to $125; cows, $25 to $40; horses, $100 to $200. Carpenters and masons, good workmen, get $1.75 to $2.00. Persons coming from New England should purchase tickets through to Galena. There are several routes at about the same expense, and persons can make their own selection. From Galena, by steam to our landing. It is on the direct route to Minnesota, and persons wishing to visit that country, can do so by taking Winneshick on the route. Fare from Boston to this place about $33.

Hoping the information herein communicated satisfactory to all inquiries, I close.

Yours truly, James Osgood.

Winneshick, Bad Ax Co., Wis., April 18, 1855.

For the New England Farmer.

CALVES MARKED BY FIRST SIRE.

Mr. Editor:—On looking over the well-arranged pages of the Agriculture of Massachusetts, page 273, it is said, to be "an established fact, that calves possess the distinctive traits of character which prevailed in the animal that first impregnated the heifer that bore them." By which, I understand that all the offspring of the same mother will be more or less marked with the peculiarities of the sire of the first calf. Assertions of this kind I have more than once seen, but never before in a form so authoritative. Can this be a law of generation, among animals? If true in animals, why not true in other classes of beings? The principle is too important to be assumed without ample proof. It was long ago said that "one swallow does not make a summer." I confess, that I was a little started at the assertion, without any note explanatory. I think the cautious editor of the volume would never himself have penned such a sentence. If true, I should like to see a more distinct development of the facts that tend to establish this theory.

I was more ready to notice this exception, because I recognize in many of the papers corrections made that are decided improvements. This volume I think a decided advance upon those before published; and if I do not mistake, there is still room for further improvements. x.

May 14, 1855.

MULCHING.

This process, although known and practiced for many years by a few cultivators, has become extensively adopted only at a very late period. It seems peculiarly adapted to our hot and dry summers, and operates chiefly in preserving the moisture of the surface, and in preventing the growth of weeds. The moisture at the surface of the earth from rains and dews, is quickly dissipated under a hot sun; and if this surface is allowed to become covered with a dense growth of living grass and weeds, there pump out of the soil and and throw off into the air a much larger quantity of moisture than is evaporated by a bare surface of earth only. But if this surface is covered with a few inches of old straw, hay or leaves, the moisture is retained in the soil, and the growth of weeds prevented. As a general rule, we have found it most advantageous to leave the surface bare and keep the soil well mellowed till near mid-summer, and then to apply the mulching. For a covering of litter, while it promotes the humidity, also prevents the heating of the soil, in and in this way may retard early growth if applied to soon. There are exceptions, however; one in the case of large, deeply-rooted trees not affected by nor needing mulching, and the other which are removed in summer, need the careful and constant retention of the earth. We have succeeded, with scarcely one failure in fifty, in transplanting the strawberry drought and heat of summer, by simply giving the surface a mulching of two inches of barn manure, and on which the watering was poured when necessary. Indeed, there is nothing that better prevents the ill effects of baking by surface watering, than a covering of this sort of a moderate depth. Mulching will, however, promote moisture in the soil, even when neither artificial nor natural watering is given, simply by arresting such as rises upwards through the earth. In one instance a striking illustration of this effect was furnished during a very long season of drought, which injured and threatened to destroy a row of newly transplanted apple trees. Their leaves had already begun to turn yellow, and growth had ceased, but on coating ground about them with a crop of mown weeds, a change was soon effected, and in three weeks the leaves had returned to their deep green hue, and in some instances growth had recommenced. But on no kind of tree is mulching more necessary than on newly transplanted cherry trees. Thousands of these are lost every season, after they have commenced growing, by the drying heat of mid-summer, and the evil is sometimes increased by superficial watering. A deep mulching will generally prove a complete remedy if seasonably applied.

Some interesting facts on this subject were stated, and valuable suggestions made at one of the conversational meetings of the Massachusetts Horticultural Society. S. Walker remarked that he had used tan, sawdust, litter, leaves, &c., but he believed short, newly mown grass one of the best things,—he had mulched a great deal with it, and found it laid close to the soil. He also recommended the succulent weeds of the garden or roadside. He found tan and sawdust to be useful merely by retaining the moisture. D. Haggerston had found sedge from salts marshes best, particularly if cut short; a good watering upon it made it lay close to the ground. He found it excellent for strawberries. He had also found tree leaves excellent, if they had partly decayed, so as not likely to be blown away. Old hot bed materials made of leaves and manure had proved particularly fine. Several spoke of the ill effects of too deep a mulching, but we think the more common error is in spreading the covering of the soil too thinly.

Mulching is a very easy and cheap practice, and the season is now at hand when our readers may prove by varying experiments the best mode of performance.—*Country Gentleman.*

EXTRACTS AND REPLIES.

BLACK LEG IN CATTLE.

Mr. Editor:—I wish to make the following inquiry through the columns of your valuable journal:—"Is there any known remedy for the cure of black leg amongst cattle?"

Within the past few years I have lost more cattle with this disease than by all others combined. Gladly would I know and seek to obtain that preventive, if any there is, which shall arrest the progress and restore to health the creature that may be attacked with this worst, it seems to me, of all diseases a creature may die with. It has been said that bleeding as soon as they were attacked with it, would surely prove a cure; of this I have not much faith, as one of my neighbors had one attacked which he bled as soon as he discovered him ailing, and to all appearances it did him no good at all.

It seems "rather hard" to lose cattle, and generally the best ones in the lot, with this disease, and not be able to afford relief to them in any way. I hope to hear from some of your correspondents in regard to this subject.

Joseph Blake.

Ashfield, Mass, April, 1855.

TO KILL TICKS ON SHEEP.

Mr. Editor:—In looking over the last number of your paper, I noticed an inquiry by a subscriber from Deerfield, N. H., "How to kill ticks on sheep and lambs without injuring them?" In answer, I would say kill the ticks on the sheep; and there will not be any on the lambs; this may be done by feeding to his sheep sulphur mixed with salt in the month of March, given to them two or three times; the quantity should be about three pounds to one hundred sheep. I presume that any other time in the season will answer equally as well, although I have never tried it except in March, while the sheep were about the barn.

Ludlow, Vt. R. C. Haven.

WHITE THIMBLEBERRY.

Mr. Editor:—I saw an inquiry in your paper of the 15th ult. in relation to the white thimbleberry. They have been in several of the gardens of this town for the past ten or fifteen years. I have some that fruited finely last season, but I find that they will fruit better to be protected in winter, and partially shaded in summer. They may be bent down to the ground and covered like the raspberry. The wood is of a pea green color, and exposure to the sun turns it to a dark brown. The growth is very luxuriant; some of mine grew last year twelve feet.

West Danvers, 1855. J. S. Needham.

TO PREVENT FOWLS FROM SCRATCHING.

Among the latest inventions of the age is one for the prevention of that pestiferous *scratching* of fowls. Loop a strip of thin leather on the legs about five inches long, and you have accomplished the object. Try it, and be sure and not laugh the first time you see them waddle. It is a perfect preventive. John Patient.

Vt., May 23.

DIX PEAR.

I have grafted the Dix pear on a medium-sized tree which bore the fourth year, and has borne well annually since.

I should like to inquire which is the best for milch cows; to give them salt at stated times, or to keep it by them. If at stated times, how much, and how often. A Subscriber.

Remarks.—Cattle will not take more salt than is useful to them, so that if it is where they can have constant access to it without waste, it is as well as any way. If at stated times, twice a week is often enough—as much as they will take.

UNFRUITFUL APPLE TREES.

Mr. Editor:—I have a fine lot of apple trees, have taken much pains with them, scraped, dug and manured them, but they do not bear—many of them—as I could wish, and indeed, I think so much as they would, were there not some drawback, not well perceived and understood. I find the well-scraped trunks and limbs covered with innumerable little gnat-like or rather louse-like little things, whether animal or vegetable, I cannot certainly say, but apparently the former. Now what I wish, and for what I write, is an explanation and an antidote from you or your correspondents. Please answer, and oblige

Northfield, N. H., 1855. A Subscriber.

TO PREVENT GRAPE VINES FROM BLEEDING.

J. H. Monroe, Esq., of Boston, informs us that common hard soap applied to the end of a recently pruned grape vine, will effectually stop the bleeding. Mr. Nourse, the proprietor of the *Farmer*, has recently made trials of this remedy, and fully confirms the statement of Mr. Monroe, and thinks sawing better than cutting, as it leaves a rougher surface, to which the soap will adhere more readily than to a smooth one. In case of accident, this remedy may enable us to save a valuable plant.

THE WIRE WORM.

As this little insect is often very troublesome to many farmers, injuring their potato crop, I thought I might be doing a favor by stating how they can prevent their perforating their potatoes. The remedy is simply this:—when planting the potatoes, drop a piece or the whole of a cob in each hill, and the worms will gather around the cob and penetrate it instead of the potato.

North Berwick, May, 1855. M. Y.

THE ONION GRUB.

A correspondent of the *Gardener's Chronicle* states that he has applied nitrate of soda to the plants with good effect in preventing the ravages of this grub. He used half a pound of the salt to a gallon of water, and applied eight gallons to a bed of ten yards in length. He states that it checked the progress of the worms, and the crop turned out well

CURE FOR WARTS.

J. M. Jessup, in the *Country Gentleman*, states that paring warts down with a sharp knife or razor until they bleed a very little, and then rubbing them with fine salt, will obliterate them; and thinks the same process will have the same effect on cattle.

TO DESTROY TICKS.

A Subscriber, at Nantucket, says that one pound of tobacco, steeped in six quarts of water, and applied to sheep and lambs, will destroy ticks.

VALUE OF STATISTICS.

We published last week some strictures on the returns of the last census:—four or five cattle and the same number of horse dealers in Kentucky. Our attention was called, by a Rev. gentleman, several months since, to the return of apprentices in Massachusetts, which was as wild as that spoken of in Kentucky. But it is not so much in reference to the inaccuracy of the returns to which we wish to ask attention, as to the caution required in drawing conclusions from such returns, even if they were strictly accurate. For example, certain employments are deemed very healthy, others very unhealthy, and this conclusion is drawn from the average age of those engaged in those employments, or from the average age at which persons thus employed die. Now this at first view seems a just comparison, but a little thought will show that it is extremely fallacious. Professional men, as ministers, lawyers, and doctors, enter comparatively late into their business, and once entered remain through life. If they engage in some other employment, they still retain their profession, or so much of it that they are counted in the number. There are exceptions, but they are comparatively few. Hence the average is high.

Again, on the other hand, shoemaking, printing, making clothes, and all the varied mechanical operations, are called hazardous because a large proportion of those who die are young; but it should be remembered that a large proportion of those thus engaged are young. Comparatively very few learn a trade after they are 20 or 21 years old, and in this country very few continue to work at their trade after middle age. Look at the young shoemaker. From 21 to 30 he sticks to the last and the awl, making an occasional call among the farmer's daughters, and perchance getting a life lease of one of them. The heaven born desire of a home which he can call his own is gratified. A little land, a cow, a pig, a garden, claim his attention. Still the shop is not deserted. Soon a larger piece of land, lying very near him, is for sale. It is added to his little homestead. He has now some plowing, haying and harvesting to do, and when Mr. A. is in a great haste for his boots, the weeds in his corn have a holiday. Soon a little more land is bought, a journeyman takes the shop, and at 40 the census taker finds him in the field gathering his crops, and writes him *farmer*. If our young shoemaker had lived in a village instead of on a farm, there would have been a *front shop*, which would by degrees receive articles from the market as well as from the *back shop*, and our shoemaker would become a shoe-dealer—a shoe-merchant —*a merchant*. Thus, with slight variations, we might trace the history of thousands, who commenced business as mechanics or artizans, laboring with their hands, and at middle age become farmers, manufacturers, merchants, &c. But, on the other hand, who has known the farmer at 45 become a shoemaker? A merchant at 40 become an artizan? Who has known a minister at 50, leave his desk and enter the work-shop of any mechanic? No, it is not the way Providence has shaped our destinies.

The farmer is the long-lived man; therefore every man desires to be a farmer, and to this end shapes his plans and regulates his conduct. To own a piece of land and cultivate that land, to see the fruit grow and mature under his direction, is a wish almost co-extensive with the race, where man is free and the end within the limits of human exertion. We would not say that all employments are alike conducive to long life. We do not believe they are. But we do say that the scale based on the average age of those living or dying in any employment, is a most fallacious one, and leads us to most erroneous conclusions. —*Culturist & Gazette.*

PLOWING WITH AN ELEPHANT.

P. T. Barnum informs the *American Agriculturist* that he has been *plowing with an elephant* for about a week. He says:

He takes the subsoil plow and drives it down 16 to 21 inches, in a tight, hard sward, and moves so fast and easily, that it is hard to realize that he has *anything* attached to him. He walks nearly twice as fast as a horse, and plows as correctly as the best broken team in the world. His attendant sometimes rides him, and sometimes walks (fast) by his side, while another man holds the plow. He also draws carts, stone-boats, (drags) *loads wood*, piles timber, picks up stones, and makes himself *generally useful* about the farm.

As for the *profit* of farming with elephants, I have not taken that part into consideration, and probably shall not, though at a "rough guess," I should think, all things considered, horses, oxen, or mules, would be quite as economical on a farm as elephants. But of this, I will leave the public to judge for itself, when I inform them that he eats three pecks of oats per day, and about 200 lbs. of hay. The one I use is as docile as a cow, yet this is not always the case.

Three pecks of oats and 200 lbs. of hay per day, would be sufficient for six horses. Will Mr. Barnum be kind enough to give us the live weight of the elephant, and the *exact* amount of food consumed on an average?

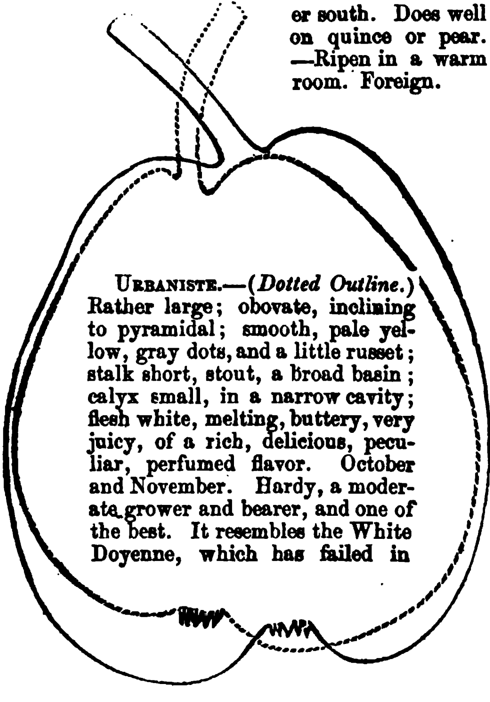
HISTORY OF MEDFORD.

We have examined some of the proof sheets of the "History of Medford," by the Rev. Charles Brooks, now in press, and find that the volume is likely to prove to be both instructive and entertaining. The author seems to have been most thorough in his researches and his work will be one of great value and interest. We intend from time to time to make a few short extracts from the volume. The following account of the "Baldwin Apple" will be perused with interest.—*Transcript.*

To Medford belongs the introduction of the celebrated "Baldwin Apple." The first tree, producing this delicious fruit, grew on the side hill, within two rods of the former Woburn line, and about ten rods east of the present road which leads from West Medford to the ancient boundary of Woburn. It was on the farm occupied by Mr. Thompson, forty or fifty rods south of what used to be called the "black horse tavern." At the request of Governor Brooks, the writer made a visit to that tree in 1813 and climbed it. It was very old and partly decayed but bore fruit abundantly. Around its trunk the woodpeckers had drilled as many as five or six circles of holes, not larger than a pea; and, from this most visible peculiarity, the apples were called "Woodpecker Apples." By degrees their name was shortened to *Peckers;* and, during my youth, they were seldom called by any other name. How they came by their present appellative is this: Young Baldwin, of Woburn, afterwards a colonel, and father of Loami, was an intimate friend of young Thompson (afterwards Count Rumford;) and, as lovers of science, they asked permission of Professor Winthrop to attend his course of lectures in natural philosophy, at Harvard College. Twice each week, these two thirsty and ambitious students walked from their homes in Woburn to bring back with them from Cambridge the teachings of the learned professor. One day, as they were passing by the "Woodpecker Tree," they stopped to contemplate the tempting red cheeks on those loaded boughs, and the result of such contemplations was the usual one—they took and tasted. Sudden and great surprise was the consequence. They instantly exclaimed to each other that it was the finest apple they ever tasted. Some years after this, Col. Baldwin took several scions to a public nursery, and from this circumstance they named the apple after him, which name it has since retained. In the gale of September, 1815, this parent tree fell; but very few parents have left behind so many flourishing and beloved children.

NAPOLEON AND URBANISTE PEAR.

Napoleon.—Rather large; obtuse-pyriform; greenish pale-yellow, deeper in the sun, sometimes a red tinge; stem rather short, rather stout, in a slight depression; basin of moderate depth; flesh whitish, coarse, melting, extremely juicy, of a sprightly, slight acid, delicious flavor. October and November. Sometimes excellent, but rather late and uncertain in this region, excepting in warm soil and locations. Better further south. Does well on quince or pear. —Ripen in a warm room. Foreign.



Urbaniste.—(*Dotted Outline.*) Rather large; obovate, inclining to pyramidal; smooth, pale yellow, gray dots, and a little russet; stalk short, stout, a broad basin; calyx small, in a narrow cavity; flesh white, melting, buttery, very juicy, of a rich, delicious, peculiar, perfumed flavor. October and November. Hardy, a moderate grower and bearer, and one of the best. It resembles the White Doyenne, which has failed in some sections. Cabot, after long experience, recommends this as one of the surest and best for general culture. Long in coming into bearing on the pear stock. Flourishes double worked on the quince. Foreign.—*Cole's Fruit Book.*

COCKROACH RIDDANCE.

The *Scientific American* says—"*Common red wafers, scattered about the haunts of cockroaches, will often drive away if not destroy them.*"

These wafers, like candies, are colored red by oxide of lead; a most deadly poison, and so is the acetate of lead, or sugar of lead, as it is sometimes called, on visiting cards, which being a little sweetish, has been known to destroy young children to whom they were handed, to be amused with. Fashion for once acts sensibly in discarding glazed cards, using instead *Bristol board*, more pliant, less cumbersome, and really more delicate. And while we are speaking of one of the pests of housekeepers it may be well to know

How to get rid of Rats, old, young, and middle aged, with the shortest possible suffering to them, and with small probability of their dying in their holes or other uncomeatable places.

Spread a level teaspoon of flour or cornmeal on a chip or small piece of dirty board, sprinkle over this half a grain of strychnine; it kills the rat before he can get to his nest.

It would be wrong to let this statement pass, in a journal like this, without cautioning the reader that strychnine is a fine white powder, much like flour, made from the seeds of a fruit which looks like an orange, growing on a moderate-sized tree in the East Indies, in the island of Ceylon and neighboring islands. A sixth of a grain of pure strychnine will kill a dog in half a minute. One grain, which would easily lie on a three cent piece, or even less, may prove fatal to a man. Hence the reason for not mixing more than half a grain at a time, and by putting it on a chip or dirty board, it would not be likely that children would taste it, although the mixture with flour looks very much like white pulverized loaf sugar. As it is such a deadly and instantaneous poison no more than half a grain should be purchased at a time; it should not be allowed to pass out of the hands of the head of the family for a single moment. The mixture should be placed in a room the last thing at night, the door locked, the key put in the pocket, and removed the first thing in the morning, by throwing chips and all into the fire, washing the hands well after doing so, as also after first mixing it, for a great deal less than a grain would kill a man, if it happened to fall on a sore or cut finger.—*Hall's Journal of Health.*

DEEP TILLAGE.

In the last volume of the Essex County Agricultural Transactions, there is a capital article on this subject, by Dr. E. G. Kelley,* of Newburyport, which we read with a good deal of interest last fall, and intended long before this time to have placed portions of it before the reader. The portion which we now give below, no doubt will prompt many farmers to plow a little deeper than they ever have before: *

It turns the drought itself to good account, and renders mulching and irrigation comparatively useless, or, if used, more efficacious. During a dry spell and in trenched ground roots strike deeper in search of food and moisture, become more extensively ramified, and sooner find the rich loam and manure intermingled deeply with the soil. The leaching process, as it is called, is reversed, and takes place upwards more than at any other time, or, in more scientific phrase, capillary attraction is increased. As each particle of moisture is evaporated from the surface, it is succeeded by another, and the whole soil is filled with the ascended moisture and gases, which are appropriated by the numerous rootlets as they have need.

The wet season is also a blessing to the deep cultivator. The more rain, the more heat, ammonia, carbonic acid, and other organic elements are left in the soil as it descends. As each drop filters through, it is succeeded by another, or by air, both essential to vegetation; and to dissolve, act on, or combine with, the inorganic elements of the soil. As the water drains off, air is sure to follow, and this is the proper mode of its circulation. Each is also generally at a higher temperature than the undrained land, and the warmth of the under soil is therefore relatively increased. The farmer often objects to this waste of water, and would retain it for a dry time! The trenched and porous soil holds water like a sponge, notwithstanding the drainage. It retains or can command enough for the wants of vegetation. But let us see the operation on the undrained land.

The farmer often speaks of his "cold wet land." No variety of soil, in any location, is, of itself, colder than another. The very water which trenching, draining, &c., allow to pass off after imparting its virtues to the soil, if retained on or near the surface by hard impervious sub-soil, becomes itself, by its changes, the source of the coldness complained of. Instead of running off, it evaporates, and by this process abstracts a great quantity of heat from the soil and surrounding atmosphere. The evaporation of a pound of water requires about 1000 degrees of heat; some authors stating it less and others more. Or it reduces 100 pounds of air 45°. This is reversing the experiment of Prof. Johnson, in Espy's "*Book of Storms*," where he says, "a pound of vapor" condensed to water "would heat 100 pounds of air about 45°." The ground to a considerable depth is warmer, by many degrees, where the rain is drained off, instead of being allowed to accumulate and evaporate. Hence this enormous loss of an invaluable stimulus to vegetation.

This chilling and deadly process of evaporation is going on to excess from the time frost comes out of the ground in the spring, till freezing again occurs. At this period, the undrained land, having the most water to freeze, becomes the warmest, say in December, when of no value to vegetation, but rather an injury. For once, forsooth. the undrained land is warmer than the drained! But for this excess of heat in winter, this kind of land must pay dearly in early spring. How is all this? inquires the farmer. Simply because water, in congealing to either ice or snow, has its capacity for heat lessened about one-ninth, and this excess is given off to surrounding bodies; or, in other words, its latent heat is set free. On the other hand, ice, or frost as it is called in the ground, in melting, demands back this same heat, at the rate of from one-eighth to one-ninth of 1000° for every pound melted; and under the surface it does not obtain all this directly from the sun, but through the soil; therefore the more water the colder and longer cold will be the land in spring. Now let the agriculturist go to work and make this "cold, wet, heavy land" of his, the very best he has for any product, trees vegetables, grains, or grasses.

For the New England Farmer.

TO DESTROY CATERPILLARS.

Mr. Editor:—To kill caterpillars, take a small sponge, tie it to the end of a pole, dip it in spirits of turpentine, thrust it into the middle of the nest, turning it well in the hand, so that the spirits may touch each individual. I have always found this a safe, speedy and effectual mode of disposing of this troublesome pest. I send it to you not because it is new, but because I deem it worthy of always being kept before the people.

Respectfully, C. C. S.

Newtonville.

For the New England Farmer.

ARABIAN HORSE "IMAUM."

The Arabian horse "Imaum," or, as is sometimes called, "the Pingree Arabian," was shipped to this country in the year 1842, by Hon. Richard P. Waters, then United States consul at the island of Zanzibar, a portion of the dominions of the sultan of Muscat. About three years since, the writer of this communication called on Mr. Waters, at Salem, Mass., to learn about this horse, and certain of his progeny bred in that vicinity. Mr. Waters informed him that it was an annual custom with the sultan to spend a few months at the above-named island, having with him a numerous stud of the best bred Arabian horses; that the sultan, desirous of showing his regard for David Pingree, Esq., of Salem, requested Mr. Waters to select a horse from said stud, numbering over one hundred horses, and ship him to Mr. Pingree, which request was accordingly complied with, the horse arriving safely at Salem, though subjected to a boisterous and severe passage. Through the politeness of Mr. Waters, the writer was also enabled to see several promising colts in the vicinity of Salem, begotten by "Imaum," and, among others, the fine young horse "Tartar," an engraving and notice of which horse may be found in the *New England Farmer*, Vol. 4, page 467.

"Imaum" has recently been purchased by Messrs. S. M. & A. F. Wait, of Brattleboro', for the improvement of the breed of horses in this quarter. This horse possesses, in much perfection, the symmetrical proportions and desirable qualities so peculiar to the Arabian blood of horses. Height about fifteen hands; head as perfect as could be desired, closely resembling the engraved head of the Arabian, on the title-page of Youatt's Treatise on the Horse; neck arching, and handsomely joined to the chest; withers high; shoulders well inclined backwards; legs sinewy and firmly knit, the tendons standing out prominently from the bone, and the knee and hock joints dropped quite low. He has an elastic step, and a pleasing air and style in every movement.

It is well known that the Arabian blood is the foundation of the great improvement made in the breed of horses in Great Britain and several others of the States of Europe. Particularly have the English breeders effected an astonishing improvement in their horses by crossing them with the Arabian; and now, the pedigree of an English horse must trace back to a cross with the pure Eastern blood, to entitle him to the name of a thorough-bred: and it is universally conceded that the endurance and speed of their horses has been very much increased by the crossing.

An opportunity is now presented to the farmers and breeders in this section, to mingle the pure Arabian blood with that of our Morgan horses; and it need not perhaps be doubted that desirable results will be realized from such a cross; that the height of the Morgan may be somewhat increased thereby, something may be added in symmetry and elegance of figure, in elastic, easy movement; that a certain air and style possessed by the Arabian may be blended with the solid, practical qualities of the Morgan, as a roadster and horse for farm work. The beneficial effects of such a cross will probably be particularly apparent in the second and third generation from the original Arabian sire.

The Messrs. Wait have also a promising young stallion, now five years old, bred by M. S. Hayes, of Farmington, N. H., and got by the Pingree Arabian. The dam of this young horse was got by the Flint or Steele Morgan, and he by the old Sherman, out of a mare by the original Morgan. The colt well illustrates the theory above advanced as to the desirable results to be expected from mingling the Arabian and Morgan blood. He has all that ease, air and style of step and action spoken of, along with the qualities for the harness and for work, and is a remarkably pleasant horse to ride after. F. Holbrook.

Brattleboro', Vt., June 7, 1855.

For the New England Farmer.

DUTIES OF FARMERS AS CITIZENS.

An Extract from Dr. Reynolds' Lecture before the Concord Lyceum.

To sustain the laws of the land and to preserve order and good government is obviously the duty of every citizen. But this is peculiarly the duty of the farmer. For the yeomanry of this country constitutes the main pillar upon which the fabric of our government rests. Without the sustaining hand of the sober, staid, enlightened and strongminded, yeomanry of our land, our government, left to the conflicting elements, that meet and struggle and battle in our cities and political arenas, would scarcely sustain itself a single year. It is the mighty voice of the yeomanry of the country that speaks with power and is heard above the raging billows of political strife. It is said that Paris is France and that the voice of France is but the echo of the voice of Paris. But, thank God, we have no Paris in America, and we have other voices than the voices of our great cities.

Now I do not counsel farmers to be politicians. They are better employed. But they should keep themselves informed, upon the topics of the day and upon the characters and opinions of the men who are in office and who are seeking it, that they may act understandingly and independently. Farmers should be public spirited. They should not consider their own little farms as all the world, but remember that others have interests at stake as well as themselves. They should ever be ready to contribute their part to support good government and to carry forward every laudable enterprise. There are often measures demanded by the public good that do not immediately put dollars in your purse, and yet they are important and necessary measures. They conduce to your comfort. They contribute to the despatch of business. They facilitate intercourse, they tend to ornament the village in which you reside, and render it more respectable, they regard perhaps the preservation of good order and good morals in the community. You cannot afford to dispense with such measures and you should ever be ready to encourage and aid them, within reasonable limits. The proper way to accomplish such works is to take hold of them with your own hands and assist in planning and executing them. Farmers are apt to leave such matters to gentlemen of leisure, who are apt to be liberal and sometimes extravagant in their expenditures, and then complain, after the work is done, of the burden of taxation. The proper way is to give so much time as is necessary to all such matters, and let your voice be heard while the arrangements are being made.

This will generally remove all cause of complaint after they are finished. Farmers are apt to be too modest in the transaction of public affairs, and to allow others, whose judgment is no better, and who have no more at stake than themselves, to assume the control of municipal business, merely because they can talk glibly and have boldness enough to put themselves forward. In this way farmers are often crowded out of those stations of respectability and honor, which they ought to occupy, and which they are better qualified to occupy than many who succeed in reaching them. Notwithstanding farmers constitute by far the most numerous class of citizens, yet most of the offices of honor and emolument are occupied by men from other classes. How rarely do you find the title of honorable prefixed to the name of the farmer! But you say this is because we are not office-seekers. Is it not rather because other men are office-seekers and you do not choose to compete with them?

Then do not complain that your position is not an honorable one and that your sons will not follow their father's business because it does not lead to honor and distinction. What is wanting at the present time is that the farmer should cultivate the soil in a more scientific manner; that his intellect should be as assiduously employed as his hands. And this intellectual activity will prepare him to comprehend and master the duties pertaining to any position in society in which he may be placed. Then when farmers are found filling many of the important and influential offices in the community, their business will appear more reputable in the eyes of their sons, and instead of seeking gold in the sierras of California, that they may enjoy the uncertain honor which results from wealth, they will be content to cultivate their paternal acres that they may in their turn fill the positions of trust and dignity which, in the course of events, will devolve upon them. In this way the farmer's calling will be rendered honorable and he will occupy that position, as a citizen, to which he is entitled, and his interests will receive that attention, from the governments of the state and nation, which they merit.

They will not be laid on the table because no political capital can be made of them. But his voice, when it is heard in the public councils, will be regarded. His influence will be felt and will be felt for good, for he has no private interests to advance. His interests are identified with the public good and he is ever ready to bear his share of the public burdens. In the public prosperity he prospers, and in the public joy he rejoices.

THE FROG.

Of all the funny things that live,
In woodland, marsh or bog,
That creeps the ground, or fly the air,
The funniest is the frog.
The frog—the scientificest
Of nature's handiwork—
The frog, that neither walks nor runs,
But goes it with a jerk.

With pants and coat of bottle-green,
And yellow fancy vest,
He plunges into mud and mire—
All in his Sunday best;
When he sits down, he's standing up,
As Paddy O'Kinn once said;
And for convenience sake he wears
His eyes on top of his head.

You see him sitting on a log,
Above the "vasty deep,"
You feel inclined to say, "old chap—
Just look before you leap!"
You raise your cane to hit him on
His ugly looking mug;
But ere you get it half way up,
Adown he goes, kerchug!

He keeps about his native pond,
And ne'er goes on a spree,
Nor gets "how-come-ye-so," for a
Cold water chap is he;
For earthly cares he ne'er gets drunk,
He's not the silly fool,
But when they come he gives a jump,
And drowns 'em in the pool.

KEEP FRUIT TREES STRAIGHT.

Trees in an open exposure often acquire a leaning position from the prevailing winds. This should not be suffered beyond a certain stage of the tree. When as large as one's wrist, they should be set up erect, and, indeed, thrown into the wind at an angle of ten or fifteen degrees; in order to bring them ultimately into a straight position. This is best done by obtaining crotched limbs from the woods, eight to twelve feet long, and placing the butt end, which should be sharpened, on the ground, and the crotch end either against the trunk, immediately beneath the branching point, or against a large outer limb, if more convenient, securing it from chafing in the crotch, by a padding of straw, or litter, and setting the tree at once up to the desired angle of elevation. Loosen, also, the ground on the windward side of the root so that it will not bind, and the work is accomplished. Let this be done when the tree begins to make its summer growth, or soon after leafing out. One season, if the tree is thrifty, will be all that is required. If, however, it be obstinate, repeat the trial another year. The remedy is sure. Even large trees, which have acquired a permanent lean, may be thrown into an erect posture, by loosening the earth at the root, and occasionally cutting off an obstinate large root, without injury to its growth, and thus be made sightly. An erect tree will be longer lived and more fruitful than a leaning one, and not half so subject to casualty as if left to its own guidance.—*Exchange.*

For the New England Farmer.

RURAL TASTE.

DEAR SIR:—I am one of those who believe in the cultivation of a taste for the beautiful as well as the useful. The value of an estate is always enhanced by some attention paid to the principles of taste. We have in our country few ivy-clad ruins or venerable antiquities, whose associations lend a charm, independent of their inherent beauty to the landscape; but we have, nevertheless, the power of increasing greatly the attractiveness of our country-seats by the cultivation of our noble forest trees, and taking advantage of the natural swells and undulations of the ground. It should be borne in mind that it costs no more to erect a building in its appropriate place, than in an inappropriate one; yet one-half or three-quarters of our farm buildings are dumped down, with the most perverse indifference apparently to every consideration of taste, in hollows, close to the road, exposed to its dust, and allowing no room for shade trees or shrubbery.

Perhaps nowhere are instances of this kind more numerous than in Bristol county, and particularly in the vicinity of New Bedford, a city distinguished by its beautiful residences and abundant shade, its streets over-arched with luxuriant foliage, and its dwellings, many of them, embosomed in trees. The instant we get into the country, the genius of good taste seems to have fled. The roads are lined with small farm-houses, either unpainted and dirty, or painted painfully white, with the most vivid of green for blinds, with a front yard of from twenty to thirty feet deep, so near to the road that the passing travellers can see clear into the parlors, (if not sealed up by the everlasting pale-green window curtains,) with no shade trees to lessen the glare of the sun, and no lattice, with climbing rose or delicate wood-bine, to diminish the bare poverty of their appearance. The barns and out-houses are often placed nearer the road still than the house, so that, on approaching the place, these unsightly buildings greet the eye first.

Now if, instead of thrusting his farm-house so closely upon the road, the owner had carried it back some one hundred yards or more, placed it upon a gentle swell, planted some forest trees around it on either side, so as to form, in time, a sort of natural arch, and painted it a warm stone color, which would have harmonized the unapproachable tints of nature instead of half neutralizing them, disposing shrubbery gracefully around, adapted to the lay of the land, how much more comfortable to his family would he have made it—how much more attractive to the eye, and more valuable in case he should wish to sell it, and how small would be the additional expense. AGRICOLA.

Dartmouth, Bristol County.

GUANO.

We give below two articles on the subject of guano—one from Prof. Nash, and the other from the *Country Gentleman*. If the charges intimated in the articles are well founded, the name or names of the persons implicated ought to be made public instantly. We shall not hesitate to give them publicity whenever they come to our knowledge, accompanied by evidence that they are correct. Prof. Nash says:—

We do not condemn the use of guano indiscriminately. We have always, in *measured* tones, commended its use on poorish, out-of-the-way lands, beyond the reach of heavy manures. For specific purposes, we have advised all farmers to have it on their premises. This year, in view of prospective high prices for produce, it may be wise to apply it on all lands and for all purposes. If any one fails to do it, and then should be sorry, let him not lay the sin at our door. Neither do we wage indiscriminate war with all dealers in guano. What we *have* said is, that in the trade, somewhere between the birds' dung-hills and our farms, there is prodigious rascality to be looked out for, and that if we escape this and get the best article, still it will not pay, in the ordinary course of inland cultivation, except in those years when produce is uncommonly high. Taking all that is sold under the name of guano, and applying it to the general purposes of farming, it will return to the farmers, in the aggregate and in the long run, but about half the purchase money. We say *in the aggregate*, because it will be admitted that those who purchase a spurious article are losers; and we say *in the long run*, because it is as clear as sunbeams, that when you take great crops from the land, without putting on more than 300 lbs. to the acre, which is 2¼ ounces (what you might well carry in a vest pocket,) to a ton of soil, you exhaust the land. If, then, you purchase a bad article, you lose outright; if you purchase a good one, there are heavy drawbacks upon the apparent profit. There are plenty of dung-making birds in Peru, and we believe there are more in this country; not birds exactly, we should not dare call them so, lest the real birds should pick our eyes out; but something, without wings, not having one upward tendency, which concocts and sells to farmers more so-called guano than all that is brought around Cape Horn. As proof in part, we publish the following from the *Country Gentleman*, omitting names of persons, as that paper has done, and also of places, which it has not.—*The Farmer, by J.*

Great Fraud in Guano.—Every one acquainted with the guano trade of Great Britain, is aware that adulteration is carried on to an enormous extent. The laws are stringent, and the penalties in case of detection severe, yet the profits are so large, and the difficulty of *proving* the fraud so great, that numbers of dishonest men are willing to brave the chances of detection. The agricultural press, when in the hands of honest, independent men, untrammelled by business connections, is the great safeguard against these and other impositions; but, though the British agricultural journals are mostly of a high tone and character, their price prevents an extensive circulation; and, indeed, comparatively few farmers take any agricultural paper whatever. Under such circumstances, therefore, it is no wonder that fraudulent manure dealers reap a rich harvest.

We have long been convinced that there were parties in this country engaged in manufacturing various artificial fertilizers, which are of little value, and we have done our part towards exposing their fraudulent practices. We were also aware that inferior guanos are often sold under an assurance that they are equal or superior to the best Peruvian, but we had no idea that there was any one in this country engaged in the *manufacture of guano*. We are sorry to say we have been deceived. Numerous as are our agricultural papers, great as are their circulation and influence, they are found insufficient to prevent unscrupulous men from *attempting* to palm off on the credulous farmers of our broad domain a comparatively worthless article, at a high price, under a *false name*, and, what is more to be regretted, it is one of the professed friends and teachers of scientific agriculture that is engaged in this deception.

How we discovered this fraud, we are not at liberty to state. Suffice it to say, that some six weeks ago, we were informed that an article, known as Mexican guano, was taken to an establishment near ——, and there mixed with plaster, salt, sugar-house scum, Peruvian guano and quick-lime, the whole ground up together and put in bags, marked "Chilian Guano."

Following the directions of our informant, we proceeded to ——, and there found a large heap of about 250 tons of Mexican guano, and some 200 tons of the *manufactured article* in bags, marked "Chilian guano," as we had been informed. We also learned that a considerable quantity had already been shipped to New York and Boston, and one gentleman said he believed a good portion of it had been sent to England.

In New York we were offered the Chilian guano, if we would take it in quantity, at $35 per ton.

We took samples of both the Mexican and Chilian guano, and made careful duplicate analyses of them in the laboratory of Prof. Carr, of this city, chemist to the New York State Agricultural Society. The following are the mean percentage results of the analyses:

MEXICAN GUANO.

Sand	0.5
Organic matter	5.0
Phosphate of lime	26.0
Carbonate of lime	68.0
	99.5

CHILIAN GUANO.

Water	4.0
Sand	2.4
Organic matter	15.3
Phosphate of lime	24.5
Sulphate of lime, (plaster)	9.5
Chloride of sodium, (common salt)	6.2
Carbonate of lime, (chalk)	37.6
	99.5
Ammonia	1.6

Having obtained these results, we proceeded once more to ——, and there received the following account of the modus operandi, adopted at the factory.

The bags are first marked Chilian Guano; they are then moistened with water, and laid in a heap, in layers, *with a quantity of Peruvian guano between each layer.*

The sugar-house scum is pounded fine. Three barrowfuls, of "five half-bushels" each, then are mixed with six barrowfuls of Mexican guano. To this are added 1½ bushels common salt, 1 bushel of plaster, 3 bushels Peruvian guano, and one-half bushel of quick lime. When the Peruvian guano and lime are added, "they make it tremendous strong." In other words, the lime sets free the ammonia of the Peruvian guano, and gives the manufactured Chilian guano a strong smell of hartshorn, which, to the unreflecting, is a sure indication of a valuable guano.

The floor, where the bags were filled, was covered with Peruvian guano, in order to make the article look as much like genuine guano as possible.

What is Chilian guano, and why is this name given to it instead of the better known guano? The only genuine Peruvian guano in this country comes through the hands of Barreda Brothers, and has their mark upon it, so that it would not be easy to sell a spurious Peruvian guano. Chilian guano is subject to no such regulations, and the books describe it, when "fine"—and the manufactured article is made fine by grinding—as a "*very* valuable variety, equal to that of the *very best* Peruvian." The name, therefore, has been chosen with consummate cunning.

SALT FOR QUINCE TREES.

The fact is well known, perhaps, to most of our readers, that plum trees, generally, are much benefited by copious applications of salt; and that one species, called the "beach plum," grows on the margin of salt water, where its roots are washed by the tides. Frequent experiments have also demonstrated of late that very decided advantages attend the application of salt to most plum trees. It seems, likewise, from the following extract from a communication in the *Horticulturist*, that the quince tree is equally benefited by it. The writer says :—

"When I first came to this section of the State, twelve years since, I found on the premises I purchased half-a-dozen fair looking quince trees, but which I understood had never borne any fruit. On inquiry I understood the quince tree did not bear well in my neighborhood, and that my neighbors thought it useless to plant this fruit tree. In making a drain from my kitchen, it so chanced that it emptied its contents near the foot of one of the quince trees. This tree, the season after, came into bearing, and as a good deal of pickle had been emptied into this drain, I supposed the salt might have produced its fruitful state. Acting on this supposition, I commenced applying salt to the other trees, early in the spring, at the rate of three quarts per annum to each tree, on the surface of the ground under each tree, the trunks of which were then about as large as a man's wrist. They came into bearing the following season, and have produced me good crops ever since."

Since writing the above, we have seen salt recommended in a Pennsylvania paper as one of the best stimulants that can be applied to the quince tree. The writer, however, recommends its application in compost rather than directly to the trees in its raw state, and with about an equal quantity of caustic lime or unleached house ashes.

For the New England Farmer.

PLOWS AND PLOWING.

I have looked with some interest for the replies to a "Tiller of hard and stony land," having myself some two years since made a similar inquiry. I have had some experience since that time and can perhaps lend the "Tiller" a helping hand. Of the plows made fifty years since I am no judge, but a cast iron plow made thirty years ago I held many a day, for at least a dozen successive years, and am of the opinion it was far superior on a stiff stony soil, such as I cultivate, to the fashionable plows of later years.

This stiff heavy loam is generally accompanied with abundance of stones, doubtless for good and wise reasons, and I never pick off those small enough to be crushed under the surface by the roller. Now the pattern of a plough to keep steady among these stones, and well pulverize this soil, my limited experience leads me to think is a short mould board, wide behind, and high beam. It seems to be the general opinion of the "*Farmer*" writers, that a good plow is a good plow anywhere and everywhere, on the sandy plain or rocky hillside, the stiff and tenacious, or the light, friable, easily worked soil. The farmer at Brookline advises to settle the matter by experiment; this is costly business for the *country* farmer, and he has a right to expect the matter is already settled. In these times of great improvements he has a right to expect that when he describes the soil the dealer will show him the plow best fitted to work it.

After a fruitless inquiry, through the columns of the "*Farmer*," I visited the plow stores in Boston, and was soon attracted to a family of plows, in the Quincy Hall store, marked "deep tiller." Mr. Nourse informed me that these were the *latest improvement*, but I saw instantly they were in fact a return, in a great degree, to the improvement of thirty years ago. I bought one marked "Deep Tiller—stubble—No. 33," and plowed my old ground with it with a satisfaction I had not felt in plowing for years. I rigged it with cutter and roller for breaking up grass, and have used no other plow but a horse plow since. To conclude I would say to brother "Tiller" that if the soil he wishes to plow is like mine, i. e. a stiff, heavy loam, with stones to match, this is the plow that will do the job for it.

Andover, June, 1855. N. N.

How they used to Plow.—In some parts of Scotland, in former times, the plows used to be drawn by four horses abreast and required the assistance of three men. The business of one man was to drive. For that purpose, he placed himself between the middle horses, with his face towards the plough, to guide it straight, and in this position he stepped backwards with the reins in his hand. Another walked behind the horses with a cleeked staff, which he fastened in front of the beam, and by means of this regulated the depth of the furrow, by raising or lowering the plow, as occasion required. The plowman followed with hold of the stills; and in this formidable and ludicrous manner they repeated their attacks on the soil.

In harvest. a basket machine was placed on horseback, for carrying home the grain; and persons were employed on each side with forks to keep it in a proper poise. It is said that the practice is yet to be met with in Galloway.

Many practices existing even at this day in Ireland are still more ridiculous. Mr. Arthur Young tells us that in Donegal he has actually seen horses plowing by the tail!—*Port. Trans.*

For the New England Farmer.

"GRAVEL WALLS."

Mr. Editor:—The recent demolition of several gravel buildings, and the denunciation of the press in one or two instances of the "*gravel wall fever*," as they are pleased to term it, should, perhaps, dictate to the writer silence, instead of offering any statements in answer to the inquiries of "A Subscriber." But in view of the onerous demands for all materials and labor connected with buildings in the usual mode, some will be inspired, despite all denunciations and mishaps hitherto, to obey the teachings of the spider, and try again until unfailing success crowns the effort. It is not a very unusual occurrence for brick buildings to fall, even some which were supposed to have been well built; but if well built upon a good foundation, it is believed there is as little danger from gravel as from brick or stone.

There were many buildings erected in this State during the last year, of gravel and lime; of those covered in, there has been to the knowledge of the writer three totally destroyed, and two or three partially injured.

The question arises, is this destruction owing to the building material, the severity of the climate, or to the ignorance and heedlessness of the builders? There are those who will, without hesitation, pronounce the latter as the sole cause of these disasters. And being of that opinion, I will, in conformity with a promise, proceed to answer the interrogations of your "subscriber."

Persons contemplating the erection of buildings of this kind, should avoid the off-hand, haphazard mode, recommended in a book which gave the first impetus, in this section of country, to this mode of building. Under this mode, as well as under all others, the building should be under the supervision of a good builder, and one who has theory and experience in building, and not entrusted to those who know enough only to pour water on to lime, and to shovel gravel. A dry site is the first desideratum. Next, proximity to a good coarse gravel bed, free as possible from loam. Blue gravel will answer, but light is thought to be the best. If the gravel is fine, it is not suitable. If coarse gravel predominates, after having run it through a screen of quarter inch mesh, if the large round smooth cobble is abundant, the larger ones should be rejected,—the lime having less affinity with them,—and rough uneven stones substituted, or what is better, stone chips from a quarry or from a stone yard. These may be put into the wall as large as its thickness will admit. The materials thus selected or fixed upon, the next important point when the cellar is excavated (and in many situations the cellar will furnish the material for the wall,) a good, substantial foundation of stone, laid in mortar if it can be afforded, should be made;—as good a foundation as would be required for a stone or brick building, and an underpinning eighteen inches above the surface of the ground, laid in solid masonry of brick or stone. Slate stone for the underpinning is the best, as the slate will hold the outer finish better than brick.

The foundation completed, planks of suitable length, proportioned to the size of the building, and twelve or fifteen inches in width, should be made ready, by planing the side that is to go next to the wall; if they are rough, they will break its surface, as they are raised up. Pine plank is best, as it is more easily worked. Hemlock is not suitable as it will warp. Iron rods ⅜ of an inch size of sufficient length to pass through both plank when set for the thickness of the wall, should be prepared, by boring one end headed, and the other tapped, and a thumb nut fitted to the screen end; these rods should pass through the plank at proper distances to keep them in position, then place them edgewise on the underpinning and the builder is ready for the material for the wall.

We now come to a very important part of the operation, and that is the preparation of suitable adhesive mixture. On this point very serious mistakes have been made during the last year, and is one prominent cause of the disasters which have happened. This part must be left for another communication. W. H. N.

Waltham, April 20.

For the New England Farmer.

WASH FOR TREES.

Mr. Brown:—I would like to have you inform me in what quantities whale oil soap should be used in washing stems of apple trees, for I have about six hundred to wash; or is there any thing that you would recommend in its stead as being better? Last season I washed them with potash water, with cow manure added.

Yours, D. E. J.

Remarks.—Nothing, in our opinion, is better than common soft soap and water. It is perfectly safe, easily applied, and answers all the desired purposes.

To prevent Bots in Horses.—A person of much experience in veterinary science is never troubled with this disease in his horses. His simple practice during the fall months is, to keep a greasy cloth in the stable, and once a week rub with it such parts of the animal as may have been attacked by the nit-fly. Grease destroys and prevents the eggs from hatching.

For the New England Farmer.

GARGET.

Mr. Brown:—At this season of the year, many cows are afflicted with what is called garget—the premonitory symptoms of which are, want of energy, dullness, running at the nose and eyes, loss of appetite, &c., &c., and, unless successfully treated, usually results in seated inflammation. The udder is generally the seat of inflammation, which, in severe cases, becomes very much enlarged, and has the appearance of being filled with knobs, or bunches of different forms and sizes, and many times extremely sensitive upon the slightest pressure; not unfrequently tumors, from which pus is discharged, and the cow rendered nearly worthless for the season, and may be entirely worthless for the dairy ever after, and only fit for the butcher. I know many slight cases of this disease have been successfully treated by giving the animal garget-root, sulphur, salt, saltpetre, &c.; but will you, or some of your many readers, inform me, through the medium of your monthly publication, the best method of treatment for a severe case?

Remarks.—In reply, we copy from Youatt and Martin on Cattle. Perhaps some of our readers may suggest a simple remedy. There is annually very considerable loss to farmers from this disease.

Garget, or Sore Bag.—Too often, however, the inflammation assumes another and worse character: it attacks the internal substance of the udder; one of the teats or the quarters becomes enlarged, hot, and tender; it soon begins to feel hard and knotty; it contains within it little distinct hardened tumors or kernels. In a short space of time, other teats or other quarters probably assume the same character. The milk has coagulated in the bag to a certain degree, and it has caused local inflammation where it lodges. This occurs particularly in young cows, after their first calving, and when they are in a somewhat too high condition, and it is usually attended by a greater or less degree of fever.

The most effectual remedy for this, in the early stage of the complaint, is a very simple one; the calf should be put to the mother, and it should suck and knock about the udder at its pleasure. In most cases, this will relieve her from the too great flow of milk, and disperse all the lumps.

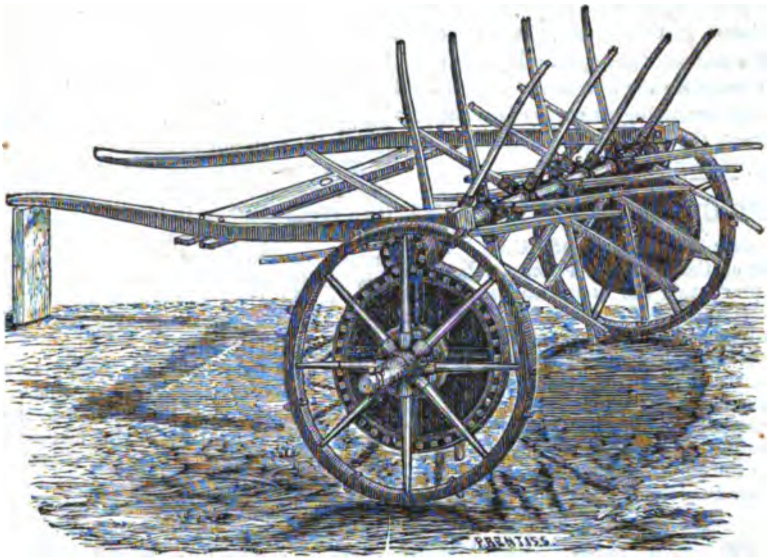
The causes of garget are various; the thoughtless and unfeeling exposure of the animal to cold and wet, at the time of or soon after parturition, the neglect of physic or bleeding before calving, or suffering the cow to get into too high condition, are frequent causes. So powerful is the latter one, that instances are not unfrequent of cows, that have for some time been dried, and of heifers that have never yielded milk, having violent inflammation of the udder. The hastily drying of the cow has given rise to indurations in the udder that have not easily been removed. An awkward manner of lying upon and bruising the udder is an occasional cause; and a very frequent one is the careless habit of not milking the cow clean, but leaving a portion in the bag, and the best portion of the milk too, and which gradually becomes a source of irritation and inflammation in the part. Connected with this last cause is the necessity of the advice already given, to milk the cow as clean as possible, at least twice in the day, during the existence and treatment of garget.

Treatment.—A little time before and after calving, particularly in the first birth, often too at other periods, there is observed on the udder a painful inflammatory swelling: the organ is hard, tense, hot and red; the entire, or only a part, is affected with swelling. The animal has rather high fever, a sharp thirst, the mouth is dry, and there is but little appetite; the secretion of milk is more or less diminished. If it has been caused by external injury, frequently moistening the part with *arnica* water is sufficient to cure it; a dose of it should also be taken internally every day. *Arsenicum* should be employed only when the disease has been neglected, or when there have supervened gangrenous inflammation or ill-conducted ulcerations, with hard and everted edges. After cold, the cure is readily obtained by *aconitum* at first, then *bryonia;* if the latter does not suffice, *dulcamara.* *Chamomilla*, also, has frequently proved useful.

CLAY.

On sandy soils, which are deficient in cohesibility, and which are consequently liable to wash, and to be blown by winds, no application is more valuable than clay. This earth is a compound of silica (sand) and alumina (clay)—not merely mixed or mingled together, but existing in a state of chemical combination. Most of the natural clays, are mixed with an extra quantity of sand, or silex, which is sand free from extraneous substances, and in various degrees of fineness. The only methods of separating the silex from the pure clay, is by washing or boiling. The silex, however, which exists in a state of chemical combination with the clay, can be separated from it only by the action of chemical reagents. "Clay differs in appearance from silica and alumina, and its properties do not correspond in that degree which might be expected from the proportion in which these two earths are united in it. It has peculiar properties which a mechanical mixture of silica and alumina cannot be made to exhibit. Nature seems, indeed, to have reserved to herself the power of effecting this intimate union, for although means have been discovered for effecting the combination for silica and alumina by chemical processes, the compound thus formed does not constitute a true clay."

The very lightest and thinest soils, by having a sufficient quantity of good clay incorporated with them, will be capacified for producing all the variety of crops ordinarily cultivated on the farm, and will be so far mechanically and constitutionally ameliorated by the admixture of this earth, as never again to become oppressed with the sterility with which they were primitively cursed.



HAY MAKER.

Last week we gave the cut of a Mower, with some remarks and testimonials in its favor. We present this engraving so that the farmer may have before him such of the labor-saving implements as promise to be useful, and may learn something of their construction and merits.

We copy from the circular of Messrs. *Ruggles, Nourse, Mason & Co.*, as follows:

"We would also invite your attention to a Hay Making Machine, described and shown below. This machine, we believe, will prove a great acquisition in facilitating the business of hay harvesting. Machines for the purpose, much more expensive, but not more efficient, have long been used in England and approved.

"We have made several trials of this machine for making and turning hay. Its operation was very satisfactory to all who witnessed its work. It is worked by one horse; a boy rides the horse and spreads, shakes or turns an acre in twenty minutes. The hay is raised from the ground and thrown into the air from six to ten feet, falling evenly distributed over the whole surface, leaving it so very light that the air and sun act forcibly and equally on the whole.

"Being enabled by the Mowing Machine to cut the grass after the dew is dried off, and by the spreader to stir or turn it often, it is supposed that generally hay may be cut, cured and put into the barn the same day. In addition to a great saving of labor, much would be saved by putting the hay in the same day, both in labor and risk of weather."

Leaves.—Every person conversant with vegetable philosophy is aware that the all important requisite, in the growth of fine fruit, is a good supply of big, vigorous, healthy leaves. A tree which he kept defoliated for a single season must die; and fruit growing upon branches which are deprived of their leaves cannot ripen—examples of which are furnished by the instant cessation of growth and ripening of fruit upon trees which become stripped by leaf blight. In one instance, a dense mass of plums remained half-grown and flavorless for several weeks, in consequence of the premature dropping of the foliage—a second crop of leaves three weeks afterwards effected the completion of their growth and their ripening to honeyed sweetness. The editor of the *Michigan Farmer* mentions the following interesting case illustrating the same principle:

"Mr. Moro, of Detroit, has a magnificent grape vine, spreading itself over one side of his house, which had been in September richly laden with fruit. After the cluster was formed a cow entered the enclosure, ate the leaves entirely, but left the fruit untouched. The consequence was that upon that portion of the vine, which was beyond the reach of the cow, there never were finer clusters, while upon the portion from which the leaves were removed, the clusters dwindled away and came to nothing, and that, too, up to the very line of separation between the mutilated and unmutilated portions."—*Maine Farmer.*

To Correspondents.—Several excellent articles, on various topics, and some agricultural poetic contributions, are on hand, which shall appear soon. We hope our correspondents will "make a note" of their experiments and operations, as they go along with their crops, and thus supply the data upon which to found articles to be written next winter, if time cannot be afforded at present. We embrace the opportunity to express, again, our thanks for the liberal and valuable aid afforded us by our intelligent corps of correspondents. We trust the advantages are mutual.

TRAPPING GRUBS AND CUT WORMS.

A writer over the signature of "C. Q." in the May number of the *Michigan Farmer*, relates his success in preventing the depredations of these pests of the farmer by a new and very ingenious invention of his own. As neither fall plowing nor any other generally known method is much to be relied upon, probably many may be induced to try this newly-proposed method. If found as successful as "C. Q." represents it, we shall be happy to make a report thereof, and to be the organ through which those who may find it useful may send a vote of thanks to the original inventor.

"Last spring," says "C. Q.," "I tried an experiment with the 'varmints' which I will relate for the benefit of whom it may concern." He planted his corn on a clover-sod plowed in spring. While planting, he found plenty of the small grubs. The corn was planted about the 20th of May, and as soon as it came up they commenced their mischief. Knowing no reliable or certain way of saving the corn, he concluded to trap them. For this purpose, he took a round stick, 3 or 4 feet long, and about 2 inches in diameter, and making one end sharp, and taking two rows at a time, he made from two to four holes 4 or 5 inches deep in or close by every hill. After fixing several rows in this way, he waited to see the result. On examination he found that almost every hole had one or more worms in it. In one hole he counted as many as six. He then went over the whole field in the same way, and the result was that hardly a hill of corn was destroyed after the holes were made, while his neighbor's corn just over the fence, which was on ground plowed very early, was more than half cut off with the worms. "It might be supposed," says "C. Q.," "that when the fellows fell into the traps they would bore into the side and escape; but on watching them, I found they would always fall back again, when about twenty-four hours of sunshine and starvation would put an end to them. They usually commit their depredations in the night, and while crawling around to find the corn they tumble in." An additional recommendation of this method is, that the birds will not pull up the corn, when they find plenty of grubs already provided for them.

"C. Q." states farther that a portion of this field of corn looked green and flourished luxuriantly, while another portion looked pale and yellow. To the former he had applied (a tablespoonful to each hill) a mixture of 2 parts lime with 3 parts ashes. The latter had no such application.—*Country Gentleman.*

For the New England Farmer.

CURE FOR RHEUMATISM.

I suppose the *New England Farmer* is intended, as its name indicates, to be the organ of farmers in all matters pertaining to agriculture.

As the agriculturist has duties to perform not strictly agricultural, yet of equal importance to the rearing of great crops, and breeding fine horses, I suppose a communication, less for the benefit of agriculture than for the good of the agriculturist, may not be amiss.

The health of the farmer and his family is certainly paramount to agricultural achievements, as a slight disease in his physical system may blast all his hopes of success in his common avocation, or the illness of his wife, the mother of his family and the mistress of his household, may tax his time and means sufficiently to keep his pecuniary affairs "in statu quo" or put them on the downhill track.

In a cold and changeable climate as we have in Vermont, a disease often provoked, to those whose business keeps them much in the open air in all kinds of weather, is rheumatism in some of its great variety of forms. This is always a disease of the joints.

Each joint in the body is covered and protected by a white, smooth, glistening membrane, called "cartilege," and white fibrous tissues generally, such as tendons, (the extremities of muscles,) capsules, ligaments and bursa, for protecting, strengthening and lubricating the joints.

Rheumatism is an inflammation of some of those fibrous tissues about the joints, and acute rheumatism is an extremely painful disease. It is usually, if not always, produced by cold obstructing the perspiration of the skin, etc. Sleeping in damp sheets, going with wet feet, or exposing the body to cold when heated, and wearing damp or insufficient clothing, are the immediate causes which produce this very troublesome malady. Usually that class of persons who wear the lightest fabrics for garments, and those who are too poor or too penurious to provide themselves garments adequate to the autumnal and vernal changes in this climate, are most liable to rheumatic affections.

Spring and fall are the seasons that people are most afflicted with what is called chronic rheumatism, attacking the shoulders, hips, back, or any other joints in the body, and often lasting for months, disabling the patient for performing all kinds of manual labor.

Now it is a fact not enough appreciated that those who provide themselves with good woollen shirts and drawers and other woollen garments are most exempt from attacks of this kind. Such flannel and woollen garments are not only preventives of rheumatism, but very often the sole means of cure.

A near neighbor of mine, some three or four years since, was attacked with pain and lameness in the left hip joint, in the autumn, so as to disqualify him for all kinds of labor. His physician recognized the disease at once, and very wisely prescribed woollen shirts and drawers. He thought he could not afford the expense, but paid dollars for patent medicines, and laid idle through the entire winter, and was forced to believe himself suffering from ulceration of the hip joint, commonly called "hip complaint," so great were his sufferings at times. He made arrangements to sell his little farm, when he again encountered his old physician who once more told him to get *the woollen shirt and drawers*. At last they were procured, and to the patient's astonishment his pain and lameness immediately disappeared. From that time to the present, whenever he lays aside his woollen garments he is attacked with the same disease, but never when he wears them.

So we say to such as are troubled with rheumatic diseases, use woollen undergarments, and to say the least you may calculate with safety that you will be much benefited. By woollen garments, we mean garments made of the products of sheeps' backs, and not those fabrics known as cotton flannels, which are much better conductors of caloric and far inferior to woollen as garments. C.

Guilford Centre, Vt., April, 1855.

POOR FARMING AN EXPENSIVE BUSINESS.

The truth is, poor farming is an expensive business. The cost exceeds the income. If from a very low grade of farming, which must of course be unprofitable, we ascend to a better condition of the art, we shall come to a point where there is neither loss nor gain; the income equals the outgoes; the ends meet, as they say. And this, if we understand these matters, is the very condition in which nine-tenths of our farming now is.

The farmer of a hundred acres puts on his farm in his own labor, in the labor of his wife and his children, in taxes, insurance, &c., $500. And he takes off in some marketable produce or for home consumption, $500. "The ends meet;" and if there were no better way he need not complain; for he is working his way through the world as quietly and as easily as most men; for the development of high moral qualities he has the advantage of most others; and what is more, he has the best possible means of training his children to those habits of industry and frugality which more than conspire to make them good men and women and worthy citizens. Let him not, therefore, complain. But if there is a better way, let him fall into it. We do not believe that farming is necessarily limited to the operation of putting on $500 and taking off $500, and living by the operation, only because what is put on is mostly in the form of labor done by the family. If a farm will give $500, with the labor of one man, it will give a great deal more with the labor of two men; and the excess will more than balance the wages and board of the second. Instead of putting on $500 and taking off $500, the better way is to put on $700 and take off $900; and then to put on $900 and take off $1200. There is doubtless a limit beyond which the income could not be made to increase above the expenditures; but very few of us are in danger of going beyond the limit. There is much more danger of falling short of it. Our standard is too low. Men are afraid to trust their land, lest it should not pay them. It is the best paymaster in the world.—*The Farmer, by* J. A. Nash.

SPECIFIC MANURES.

No very important movement for the general good ever yet had uninterrupted success, and as it is struggle and opposition that best acquaints, even the advocates of any measure, with its strong and weak points, it is not best it should; indeed, for this reason fair and honorable opposition is to be desired, but the attacks of calumny, deceit and meanness are particularly difficult to be met.

No set of men ever had more uphill work and greater difficulties to face, than the advocates of improved agriculture, and that they have triumphed through them, and in spite of them, is shown by the strong interest felt by the community in general in agricultural matters; in the establishment of means for the diffusion of useful knowledge amongst the rural population, in our well attended autumnal cattle shows, in the growing use of various specific manures, &c.

Any careful observer of the respective theories and "isms" of the day would decide that the agricultural is the most popular one, and that it is likely in the end to be triumphant; but let no one suppose this popularity has come unsought, or with small effort. How many men have devoted years of gratuitous labor to the cause; remember the untiring efforts of Pickering, Coleman, Buel, Phinney, Lowell and numerous others; or in our own day, it is only necessary to point to the Massachusetts Board of Agriculture, who, with an immense amount of gratuitous, and apparently almost thankless labor, persevere undismayed in their efforts to improve and benefit the agricultural condition of their friends and neighbors, whether of the same town, county or State.

It is most worthy of laudatory notice, that twenty or more men could have been selected from various parts of the State, who would be willing to devote a large portion of their time, unremunerated, to the duties of the Board, and renders them deserving of the State's gratitude. We are apt to but lightly esteem advice gratis, and it is not impossible that these men's efforts are underrated for that very cause, and perhaps many who are aware of their existence suppose them to be the incumbents of fat offices, which are mere sinecures, instead of which they give a very large amount of time, labor and money without any other present or prospective reward than the success of their measures, and the benefit of their countrymen.

Since the first establishment of this Board, in spite of opposition, and of the narrow-minded attacks of men who judge only by the evidences of their senses, they have accomplished an immense amount in the way of undermining prejudices, enlightening darkness and introducing improvement.

But they too have to meet the low-minded and mean opposition, and to suffer from the most aggravated and least defensible attacks, the stabs of pretended friends; they, and the agricultural press besides, have been for years urging the extensive trial of specific manures, whether to supplant, assist, extend or enhance the benefits and use of bard-yard manures.

To secure a judicious application of the material used, repeated directions have been given of the amount to be used, and the best way of applying it, in some cases, even, with details of carefully tried experiments, as farther guides; and as a result of this action, a larger quantity of specific manures has been sold this year than ever; how disastrous, then, must be the effect upon novices, who have been excited to try such aids to culture, by this continuous advice, if they buy in good faith, and relying upon the assurance of the seller, a spurious article, perhaps at a high price, which will prove either useless or perhaps positively injurious to their crops.

If, for instance, any one purchases guano, trusting to the statement of the vender that it is a genuine and valuable article, paying $40 or $50 a ton for it, which is in reality a miserable combination of lime, plaster, salt, coal ashes, and a pinch of guano to give it smell and color, (see analysis of Chilian guano below, taken from the *London Agriculturist* of May 24,) which will give no remunerative return for its application, he does not condemn the article he used, so much as the spirit of improvement which prompted him to make the trial, and the entire discredit of the operation falls, not as it should on the head of the vender, but upon the advocates of progressive agriculture; and the untiring efforts of the friends of improvement are all laid under suspicion. But such must this year be the fate of many, for it has been discovered by the editors of the *Country Gentleman*, that an article denominated Chilian guano has been largely manufactured, and sold over the country, and some even shipped to England, at the price of $40 a ton, that is not worth $10 the ton. It is composed of

Water	4.0
Sand	2.4
Organic matter, (Sugar-house scum)	15.3
Phos. Lime	24.5
Plaster	9.5
Salt	6.2
Chalk	37.6
	99.5

of which there is 1.06 per cent. of ammonia—and this abominable preparation is endorsed by Dr. Hayes of Massachusetts, and Prof. Mapes, of New York, and some others, and has been widely recommended as a valuable fertilizer.

What a terrible stab from behind is this, coming, too, from the very men who make the largest protestations of zeal and enthusiasm in the agricultural cause. It is an outrageous and abominable piece of quackery and imposture, nor can too much indignation be felt against its perpetrators; no confidence will hereafter be felt by the victims of this fraud in any so called agricultural improvements. But we cannot too strongly urge upon those who have suffered this year, not to be discouraged in the future, but with renewed zeal make other efforts, only hereafter being careful to purchase their material from men of solid and well-established reputations, and never to purchase any recommended preparations because they are cheap, nor unless heartily endorsed by men who can be depended upon.

It is to be desired that the exposure of this humbuggery as published in the *Country Gentleman* and *American Agriculturist* should have the largest publicity, that the public may become so thoroughly awakened to a sense of the benefit good special manures may do, and of the worthlessness of the bad, that there may be a larger use of the former every year. And we cannot help believing that those interested in agriculture in our Commonwealth have so large a share of good sense as to be able to discriminate between the good and the bad, and while they award the largest share of praise and encouragement to all who are honestly laboring to forward the cause amongst us, no less thoroughly to condemn all quacks, and venders of patent agricultural medicines, whether for men, animals or the crops.

For the New England Farmer.

EFFECTS OF THE WINTER ON FRUIT TREES.

CORRECTION.

Friend Brown:—I have no desire to appropriate too much space in the *Farmer* to myself, but noticing several serious mistakes in my communication which appeared in the last number, I venture to correct them.

In the 19th line, for "9°" and "8°" read —9° and —8°, or, 9° and 8° below zero.

In the 21st line, read —14°.

In the 26th line, read —28°.

In the 30th line, read —38°.

In the 31st line, read —24½°.

In the 39th line, read —40°.

A great difference will be seen in the two readings,—a difference equal to *twice the number* of degrees indicated. In the first, too, there is a manifest inconsistency which no reflecting reader will fail to observe, for it makes me say that in the "coldest day on record in this county," the mercury did not fall so low by *ten degrees* as in the previous day, nor so low by *fifty-six* degrees as in the 19th of 12th month.

The sign *minus* (—) is commonly used to indicate below zero, and in my communication I used it accordingly. No doubt the mistakes were made by the compositor, who, perhaps, did not consider the *value* of the signs.

Perhaps it may not be out of place to make a few remarks upon the effects of the extremely cold weather of the past winter upon fruit trees. Apple trees are injured worse than any others. Many large, thrifty trees have lost nearly all of last year's growth. A large tree in my garden is nearly dead. One limb, which bore half a bushel of fine Greenings last year, looks as though it will never produce fruit again. Grafts set last spring, and which grew two feet or more, are, in many cases, *entirely dead*, and in others only a few inches of the larger end is alive. Young orchards, too, have suffered very much.

A neighbor, who had a fine orchard of grafted fruit, that has borne a few years, informs me that his trees are nearly all dead, causing not only a pecuniary loss, but a sad disappointment. Several maple trees, standing near his house, are also killed, although they had grown five years. I have not heard of an equal amount of damage in any other place, though all are complaining of injury. S. Varney.

Bloomfield, C. W., 6 *Mo.* 5, 1855.

EXTRACTS AND REPLIES.

AN EXAMPLE.

Gentlemen:—Nearly two years ago, I accidentally became a subscriber to your paper, and I *must* confess I am not sorry for it. My family now watch for its coming each week; my young men, too, delight upon "it to gaze" and peruse its well-filled and ever interesting columns. I am glad to have them receive instructions therefrom, and feel assured their morals will not be corrupted thereby, but that they will be benefited and strengthened in the way to respectability and usefulness. Need I inform you that their joys are my joys? Enclosed are two dollars to pay for my subscription for one year in advance from *September next*, for which please send me your receipt. I am, very truly yours.

Burlington, Vt., June 11, 1855.

Remarks.—Though often receiving letters similar to the above, we do not often indulge in showing them to our neighbors. But this comes with so many tokens of grace and heart, that we cannot keep it to ourselves. It not only brings the sinew of all agricultural and commercial prosperity, *the cash*, but is accompanied by three excellent communications, each written in a clear, fair hand, and only upon one side of the sheet. What a noble example! May the writer live to see the *New England Farmer* a thousand years old, and welcomed by as many and as heartily as were the recent rains of which he speaks in one of his communications.

FOUR FAT BEEVES.

I noticed in the May number of the *N. E. Farmer* an inquiry of the live and dead weight of cattle. In the winter of 1854 I fatted four beeves which were butchered, and I send you a statement of their weight, which shows that by weighing them alive and deducting one-third, will give very nearly the weight of the quarters, tallow and hide, when dressed.

1 Cow, 11 years old past, 1360, off one-third	907
Quarters 715, tallow 100, hide 90	905
1 Steer, 3 years old past, 1443, off one-third	962
Quarters 792, tallow 86, hide 101	979
1 Steer, 2 years old past, 1225, off one-third	817
Quarters 661, tallow 79, hide 84	824
1 Steer, 2 years old past, 1410, off one-third	940
Quarters 762, tallow 109, hide 89	960

Yours and a subscriber,

Skaneateles, N. Y. 1855. P. Whittelsey.

THE SEASON IN VERMONT.

We have just had the finest rain I ever witnessed, or at least it has been most appreciated; it commenced Saturday evening, the 3d instant, and came fine and gentle, not much more than a mist, and continued so for twelve hours, when it increased to a continued drenching rain, which has thoroughly saturated every thing out of doors. Crops never needed rain so much. Grass was dried up in spots over our intervales, and was fast extending over the whole. Corn that was planted early did not grow, while that more lately planted did not find moisture to sprout, or if it did, dried up. The same was the case with English grain. We have not had any rain since the season for planting, or even since the snow went off, to soak the ground. It has given new life to vegetation and the heart of the farmer.

Bolton, Vt., June 5, 1855. A Subscriber.

READING AND THINKING.

I rejoice to know that many of our farmers are beginning to see the importance of *reading and thinking* before acting, upon the subject of farming as well as political matters. I find many who are willing to be called "book farmers," provided there is money in the affair.

Yours, Solomon Steele.

BLACK KNOTS ON PLUM TREES.

Mr. Editor:—I was reminded a few days since by an article in your paper of what I saw in Nova Scotia. A gentleman pointed out to me some fine looking plum trees from which he had partially or wholly cut out the black knot, and then rubbed in spirits of turpentine. The wounds were healed up wholly or partially, as from any ordinary wound; the disease seemed to be eradicated from the previously affected part. I suggested to him the propriety of covering the wound with grafting wax immediately after the application of the turpentine. As this disease does not affect trees in this vicinity, I am unable to test the matter by experiment, but leave it for those who have the opportunity; it does not seem to me that the disease is beyond the reach of some specific remedy. Will some correspondent tell us what they know of this remedy? N. T. T.

Bethel, Me., June 5, 1855.

Remarks.—Since having been informed of the use of spirits of turpentine as a remedy for the black knot on plum trees, by a lady, who communicated the fact through the *Farmer*, we have been using it on plum trees, and find it promises well. Some of the places on which we first applied it are now partially covered with a new and healthy-looking bark.

If it proves a remedy, it will be an important one.

HOW TO SOLDER.

MR. EDITOR:—Having once answered an inquiry, made through the *New England Farmer*, for which I received many thanks, I am induced to say a word in answer to "P. I.," "How shall I solder?" I have been in the same predicament with him. Having to join a pipe full of water, which could not be excluded, I cut off the end, seamed it out somewhat larger than for an ordinary joining to solder, and filled my splice with considerable lap; I then took a strip of new cotton cloth, dipped it in *hot* grafting wax, wound it round the joint, and, before it had time to cool, confined it with a strong twine. It has answered perfectly since. Yours truly,

Lancaster, *June* 4. BENJAMIN WILLARD.

ABOUT POTATOES.

If I had leisure, I would give you an article on potatoes, and, if you wish, will do so hereafter, detailing some "well-conducted experiments" in reference to an article in your last number, signed "S. P.," which he closes by saying, "Are there any experiments to prove it? If not, let us discard *theory* and determine the facts." I can at this time only state a few "facts." One is, that there are certain *fixed principles* or laws of nature, that, if known and regarded, will secure uniform results, invariably, under the same circumstances.

Failures are easily explained by one *acquainted* with these laws, on learning the management in a particular case. Large potatoes may give small returns simply because of *over-seeding*. Half the seed, even of small ones, may do as well, for the same reason that, with a given amount of feed, six small pigs would make as much pork as twelve larger, finer animals, limited to the same amount of *feed* and *room*. Had the Connecticut neighbor, "S. P.," cut off the cluster of eyes at one end of his large potatoes, and the feeble eyes at the opposite stem end, and planted only three or four central eyes, both gentleman would have learned something by experiment. I once told a curious, quizzing man, how he could raise potatoes with *four fingers*, like a man's hand. Two years after I passed his house (in Vermont,) and he was sorting a lot of potatoes, among which he found more than a peck of fac similes.

I will add, my convictions are that flavor, color, size and time of ripening potatoes, are equally and certainly subject to these principles and governed by these laws. And the same I deem reliable in grain and *fruits*, if we raise the unmingled seed. BENJAMIN WILLARD.

Lancaster, *June* 4, 1855.

ABOUT SOLDERING PIPES.

In reply to "Prof. Tinker's" inquiry in the *Farmer*, a few weeks since, please inform him that by cutting his pipe smooth at the end, and crowding in six inches of a candle, softened on the outside by a hot copper, and then pouring in melted tallow, he may stop the water perfectly tight, and then perform the work desired. After the soldering is complete, the candle may be removed by pouring on hot water. There should be a space of six inches between the tallow and the place to be soldered. This reply is from actual practice and not dead theory.

Vt., *May* 23. TINKER PORTER.

For the New England Farmer.

ARTICLES IN SEASON.

In the *Farmer*, for February 3, there is an article from a correspondent, who complains that you do not insert the articles you receive till two months after the season of operation is over. The remarks I am about to make have reference to the Monthly *Farmer*. Let us reason together, and see if your correspondent has any cause for complaint in this matter. This being a season of the year when there is not so much to do as there will be two months hence, it is a favorable time for the farmer or gardener to study out improved plans in plowing, sowing, harvesting, or improved modes of feeding oxen, cows, pigs or poultry. He tries his plans, and notes the result, and not being a selfish man, he commits it to paper while it is fresh in his mind, and, as soon as he has a leisure moment, prepares it for publication in the *New England Farmer*, or some other agricultural journal, for the benefit of his fellow-men. It will be seen by this that an article cannot appear *till it has been proved;* then, if it is two months too late, it is, at the same time, ten months too soon! Hence the value of an agricultural paper in book form—it being supplied with a complete index of all the subjects treated upon, likewise a list of the correspondents' names, so the reader has no trouble in finding any article at *any* time. I have been a subscriber to the present *New England Farmer* ever since it was published, and if I could not replace them with others, I would not part with them for four times what they cost me.

The writer of the article referred to above, does not seem to like the idea of reviewing the previous number. I cannot see any objection to this; I like it. Yours, HUNTER.

Whitinsville, *Mass.*, *Feb.* 8, 1855.

For the New England Farmer.

THE WEATHER AND THE CROPS IN NORTHERN VERMONT.

MR. EDITOR:—May was free from rain; vegetation was kept upon "short allowance" all through the month, and her kindest friends began to despair of her success. Many a countenance was o'ercast with gloom. The forebodings in regard to the drought were very serious and plentiful; but June came, and with it gentle, gentle and most welcome rain. Never did it cheer the heart of the husbandman more; in fact it cheered everybody, for the merchant, mechanic, manufacturer and professional man now see clearly the great importance of the farmer, and of good crops, for without them business of all kinds languishes, and the grass is made to grow in our thoroughfares. Since June came in, it has rained with us *every single day*, and it now continues its gentle and welcome visits to the previously parched earth. I am not of the fault-finding or never-to-be-satisfied kind; still if it continues much longer, we, like Macduff, shall cry "Hold, hold, enough!" Still a wise Providence orders all these things aright, and in his hands are we resigned to place the matter. The ground needed a most powerful rain, a thing it has not had for a year or more, and now we *have it*. Our long empty cisterns, wells, brooks and streams will again appear as of old. Each will rejoice at finding itself "at home again."

The effects so far have been surprising. Grass and grain have grown astonishingly. We fear the former will be rather light, however, owing to the fact that in many places it was either "winter or summer killed;" many spots being entirely free from all signs of verdancy. The severe drought of last season, no doubt, injured grass in many places, and then the very dry time we have had all through May gave it a complete quietus. At best, our hay crop, as we now think, must be much under the average, making all allowance for the powerful effects of the long-continued and most welcome rains we are daily having. Corn, potatoes, &c., are springing up finely. With warm and sunshiny weather, they will now come on rapidly.

Be assured that old Vermont has "sown and planted the seed" this year. If she "reaps as she has sown," our storehouses will be too small, and we can feed all of our neighbors with a surplus. May the great industry and hopes of our farmers be fully realized this autumn. It will give cheer to every interest; it will speed the spindle, the cars, the ship; give enterprise a new joy; commerce new energy and hope, and the whole country will go on rejoicing in plenty and cheerfulness. SO-MAY-IT-BE.

Burlington, Vt., June 11, 1855.

For the New England Farmer.

CHEAT IN FERTILIZERS.

Scarcely a paper comes to hand, that does not contain more or less notice of these impositions. The grossest of the kind we have seen, is the mode of compounding an article, called "*Mexican guano, almost equal to Peruvian,*" for which an establishment is said to be founded near New York. That any man, or association of men, with any regard to character whatever, should presume upon such an experiment, is most astounding.

If we do not mistake, many of the condensed fertilizers now before the public, will be found, on being tested, equally valueless. These patent invigorators of the fertility of the soil, like the patent restorators of the health of the body, will be found like their authors mere humbugs. Some discriminating test of quality, or guarantee of purity is imperatively demanded. The man who imposes upon the honest tiller of the soil, by putting forth such spurious articles, is as much more guilty than he who practices other counterfeits, as is the fraud more difficult of detection. We have witnessed, the present season, striking illustrations of the fertilizing power of genuine guano on grass land. Many of our gardeners have applied it in connection with other manure, where vegetables are to be grown, and we hope to hear favorable reports of its value. *.

June 11, 1855.

☞ The Farmer's High School, incorporated by the last legislature of Pennsylvania, was organized at Harrisburg on the 14th. The offer of Gen. Irwin to give 250 acres of land if the school shall be located in Harris, Centre county, and other propositions to give or sell sites, were referred to be reported on early in July, after an examination of the localities.

THE HARVEST.

Our exchanges from every quarter bring cheering accounts of the growing crops, and there is now every reason to believe that the harvest of 1855 will be the largest ever realized in this country. Stimulated by short supplies and high prices, and by the prospect of a ready market in Europe, an unusual breadth of land has been seeded, and thus far a kind Providence has withheld nothing that is needed to crown the labors of the husbandman with success. From the harvest reports before us, we cull a few particulars, showing the general tenor of accounts from various quarters.

"Maine never had so much seed in the earth before, at one time, and the prospect is most promising for bountiful crops."—*Augusta Banner.*

"The rain has saved the crops that were perishing with drought, and all vegetation is growing rapidly. We think the amount of grain and potatoes put into the soil this year, is full one-third more than usual, and if the crops do well, there will be an abundant harvest."—*Rutland* (Vt.) *Herald.*

"A gentleman who travelled through the central and southern portions of this State quite extensively during the last ten weeks, informs us that the prospects of a good crop are encouraging. Much of the damage done to wheat fields he attributes to poor tillage, and thinks the devastations of the fly are greatly over-estimated."—*Detroit Tribune.*

"The cotton and provision crops along the seaboard of Georgia, are also very promising. The cotton is somewhat backward but is doing well. A friend writes us from Bryan County, that the late rains have started the grass to growing as well as the cotton, and that it is all the planter can do to keep it in subjection. The provision crops in the southern portion of Georgia were never more promising than they are at present. The same remark will apply to the crops throughout this State. Less land has been planted in cotton and more in grain, than in former years, and the prospect of an abundant yield is most encouraging, especially of the provision crops, notwithstanding the backwardness of the season."—*Savannah Republican.*

"In a journey of 3,890 miles through portions of the States of Ohio, Kentucky, Indiana, Illinois, Missouri, Iowa, Michigan, Pennsylvania and Virginia, performed during the past six weeks, and mostly by daylight, my heart has been constantly gladdened by the prospect of the growing crops. In a travelling experience of more than fifteen years, I have never seen so broad a portion of the country under cultivation as at present, or a period when the crops of every description promised a more abundant yield than now."—*Cincinnati Gazette.*

A correspondent of the *Charleston* (S. C.) *Courier*, 14th inst., who has spent some time in Upper Georgia and East Tennessee, informs that paper that "the crops generally were unusually promising, and the extent of culture beyond former years. The wheat harvest had commenced in Georgia, and will soon be ready in Tennessee.

A gentleman well qualified to judge, estimates that one county of Georgia alone will yield 100,000 bushels of wheat, and there is every prospect that the leading provision staples in that great grain region will at no very distant day settle at the old prices."

A letter from Knoxville, dated the 6th inst., says: "We have recently had copious rains, and our crops in East Tennessee, except oats and hay, will be very abundant. Wheat is very promising indeed, and will be gathered in two or three weeks. Crop will be two or three times larger than ever before."

The *Charleston* (Va.) *Free Press* of the 14th, says:—"The improvement in the growing crop of wheat, for the last two weeks, has astonished every one. Barring any further injury, we think the yield this year will be fully equal to that of last year. Some of the farmers in the vicinity of Fredericksburg commenced harvesting their wheat last Tuesday."

A gentleman who travelled over 600 miles in Illinois within a few days, returned to Chicago and reported on the 11th that the wheat fields, without exception, are promising unequalled crops; the corn is also luxuriant, in some places almost in tassel; and the fruit crop is tremendous, being the greatest abundance of apples, peaches, cherries, &c., wherever there was a tree planted. The wheat crop will probably be 25 per cent. greater than ever before grown in Illinois; and about half the freight cars are laden with patent grain reapers, threshing machines, and other agricultural implements.

The generally favorable tone of these reports is slightly modified by accounts from certain quarters, of the appearance of the bug or the fly among the grain fields. It is generally reported, too, that the coolness of the spring has kept back corn. Oats, also, in some localities are not a promising crop.

For the New England Farmer.

GOOSEBERRY CATERPILLAR.

MR. EDITOR:—Can you, or any of your correspondents, inform me of any method of destroying the gooseberry caterpillar? For a few years past, all our gooseberries have been destroyed by this destructive insect; they have just commenced their work of destruction, for this year, and are now about one-fourth of an inch in length, and of a whitish-green color, and when full grown, they are about one-half an inch in length, and of a pale green color, and oftentimes of a greenish brown. GEORGE G. CHENEY.

Weston, June 5, 1855.

REMARKS.—COLE, in his Fruit Book, says that spent tan strewed under and around the bushes, will sometimes prevent the ravages of the gooseberry caterpillar. We have experienced no difficulty in this way, and know of no certain remedy.

☞ Flour is offered in the New York market, for delivery in July and August, at less than $9 a barrel, without finding a purchaser.

LADIES' DEPARTMENT.

DOMESTIC RECEIPTS.

TO KEEP SILK.—Silk articles should not be kept folded in white paper, as the chloride of lime used in bleaching the paper will probably impair the color of the silk. Brown or blue paper is better; the yellowish, smooth Indian paper is best of all. Silk intended for dress should not be kept long in the house before it is made up, as lying in the folds will have a tendency to impair its durability by causing it to cut split, particularly if the silk has been thickened by gum.

Thread lace veils are very easily cut; satin and velvet being soft are not easily cut, but dresses of velvet should not be laid by with any weight above them. If the nap of thin velvet is laid down, it is not possible to raise it up again. Hard silk should never be wrinkled, because the thread is easily broken in the crease, and it never can be rectified. The way to take the wrinkles out of silk scarfs or handkerchiefs, is to moisten the surface evenly with a sponge and some weak glue, and then pin the silk with some toilet pins around the shelves on a mattrass or feather bed, taking pains to draw out the silk as tight as possible. When dry the wrinkles will have disappeared. The reason of this is obvious to every person. It is a nice job to dress light colored silk, and few should try it. Some silk articles should be moistened with weak glue or gum-water, and the wrinkles ironed out by a hot flatiron on the wrong side.—*Scientific American.*

SPONGE CAKE, No. 1.—Three-quarters of a pound of flour, twelve eggs, one pound of sugar, a table-spoonful of rose-water. Beat the yolks and sugar together until they are very light. Whisk the whites till they are perfectly dry, add the rose-water, then the whites and flour alternately, but do not beat it after the whites are in. Butter your pans, or if you wish to bake it in one large cake, grease a mound, pour in the mixture and bake it. The small cakes should have sugar sifted over them before they are set in the oven, and the oven should be hot.

SPONGE CAKE, No. 2.—One pound of sugar, three-quarters of a pound of flour, ten eggs. Dissolve the sugar in one gill of water, then put it over the fire and let it boil. Beat the eggs a few minutes, till the yolks and whites are thoroughly mixed together, then stir in very gradually the boiling sugar; beat the eggs hard all the time you are pouring the sugar on. Beat the mixture for three-quarters of an hour; it will get very light. Stir in the flour very gently, and add the grated rind of a lemon. Butter your pan and set it on the oven immediately.

SPONGE CAKE, No. 3.—Five eggs, half a pound of loaf sugar, the grated rind and juice of one lemon, a quarter of a pound of flour. Separate the yolks from the whites. Beat the yolks and sugar together until they are very light, then add the whites after they have been whisked to a dry froth, alternately with the flour. Stir in the lemon, put the mixture in small pans, sift sugar over them, and bake them.—*National Cook Book.*

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Feb. 1855. 1y.

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SOLOMON STEELE.

May 1, 1855. 2

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NEW ENGLAND FARMER:

A MONTHLY

AGRICULTURAL JOURNAL,

FOR THE FARM AND GARDEN.

SIMON BROWN, Editor.

FREDERIC HOLBROOK, OF VERMONT, HENRY F. FRENCH, OF NEW HAMPSHIRE,

ASSOCIATE EDITORS.

Without encouragement of AGRICULTURE, and thereby increasing the number of its people,
any country, however blessed by nature, must continue poor.—SWIFT.

Vol. VII. AUGUST, 1855. No. 8.

BOSTON:
JOEL NOURSE, PUBLISHER,
QUINCY HALL.

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POSTAGE.—The Postage on the Monthly Farmer to Subscribers, is now twelve cents a year, to be paid quarterly or yearly, in advance, at the office where it is received.

DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

VOL. VII. BOSTON, AUGUST, 1855. NO. 8.

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OFFICE....QUINCY HALL.

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CALENDAR FOR AUGUST.

"The FARMER'S life displays in every part
A moral lesson to the sensual heart."

AUGUST, the last of the Summer months, has come; the fulness of the year has past; the wheat, and some other important crops, are gathered; and though the potatoes, and other roots, the apples, the buckwheat and the golden corn remain to be harvested; yet the flush and fulness of the year are gone. Like a beautiful woman, just past her prime, when the vigor of health and fulness of outline are so imperceptibly touched as only to add new charms, so the vegetable kingdom compensates us for the loss of its robust habit in a thousand beautiful and unthought of shades and shapes. Indeed, "the whole face of Nature has undergone, since last month, an obvious change; obvious to those who delight to observe all her changes and operations, but not sufficiently striking to insist on being seen generally by those who can read no characters but such as are written in a *text* hand. If the general *colors* of all the various departments of natural scenery are not changed, their *hues* are; and if there is not yet observable the infinite variety of autumn, there is as little the extreme monotony of summer. The woods, as well as the single timber trees that occasionally start up with such fine effect in the midst of meadows and cornfields, we shall now find sprinkled with what at first looks like gleams of scattered sunshine lying among the leaves, but what, on examination, we shall find to be the new foliage that has been put forth since midsummer, and which yet retains all the brilliant green of the spring."

As we said of July, so we say of this month—it is peculiarly AUGUST-like. The general appearance of the country is unlike that of any other season. The mornings and evenings are sometimes a little chilly, then close, damp, "muggy," and hot, with a kind of suffocating influence on the sick, while the glaring sun at noon burns with fervent heat. These are the joyous hours, however, of the locusts, whose intense earnestness of song is only less fierce than the sun itself, and wakes the tired laborer too soon from his accustomod nap at noon. The air glistens with the radiated heat, fowls drop their wings, cattle stand in pools, or seek the shade of some friendly tree, standing singly on elevated land, where every breath may cool their heated sides. Dogs plunge into the water, while the cat seeks some dark corner, where neither sun or flies will torment, and sleeps quietly away the day. Young cocks begin to crow lustily, often starting their "pitch" a good deal too high, and break down before they have accomplished half the scale. Young bitterns occasionally show their javelin-like bills above the high grass, on the look-out for danger, as they leave their native meadows for some wider field of action. Crickets chirp solemnly in the evening, children crunch green apples and hate to go to bed, though the latter only is *not* peculiar to the season.

Those who observe, will notice that *August* is not July or September; that it has its appropriate functions, as have all the other Months, and that it is devoted to the discharge of them.

All is *August*-like. The birds have reared their young, and taught them, *to perfection*, how to fly, how to provide their food, how, in their turn, to build and lay and rear their young, and when to leave their native land and flee to kindlier skies; that is, they have attained all they need, to enable them to fulfil the object of their existence. Brief lessons, yet how perfectly acquired, and how competent to enable them to gratify their wants.

The Dog-Star rages. The air seems to lose its freshness and elasticity—the heat is more oppressive than ever—man and his animals get tired sooner than in July, and the returning Sabbath is welcomed with grateful delight.

> "How sweet the Sabbath wakes its rest again!
> And on each weary mind what rapture dwells,
> To hear once more the pleasant chiming bells,
> That from each steeple, peeping here and there,
> Murmur a soothing lullaby to care."

Appropriate and peculiar duties also belong to August. The first of the month may be improved to get in a crop of flat turnips, where circumstances have prevented its being done earlier. *Superphosphate of lime* will be an excellent manure for them, if the barn manure is not to be had. Let the sowing immediately follow the harrowing, while the soil is fresh and moist. Thin them early and hoe frequently, and a good crop may be expected. Nothing will prove more advantageous to your milch cows than a plentiful supply of roots with their winter feed. They largely increase the flow of milk, and keep the system in a healthful condition. If there is a mixture, comprising turnips, beets, carrots, parsnips, ruta bagas and mangels, so much the better.

If the hay crop proves short, sow a liberal breadth to turnips, in order to make up the deficiency.

Weeds.—Keep down the weeds. Each fully-developed dock, or wormwood, sorrel, mulleir or mallows, leaves seeds sufficient to propagate its kind for years to come. The thorough cultivation of *this year* lessons the labor of the next, and gives vigor and weight to the crop now under your hands. Do not "lay down the hoe" yet. What a proud moment it is, when the best farmer in your neighborhood declares to you that a handful of weeds cannot be found in your six acre lot of potatoes and corn! Weeds perpetuate their kind, steal nutrition from the crop and exhaust the soil. Who can afford to let them grow?

Haying.—Some persons do not cut their meadows—that is, low land bearing an inferior grass—until late in August, or even September. But these grasses are far more valuable cut as soon as they are in bloom, made as little as possible, so that they will keep, and put away with three or four quarts of salt per ton. Cattle will eat one or two fodderings of this each day in preference to feeding entirely on good upland hay. It affords a variety, and they like this as well as the rest of us.

Pastures.—There is a general belief that August is the favorable month for cutting bushes. How that is, we do not know. But it is evident that a vast amount of labor is annually expended in "bush-whacking," and it is labor that *will not stay done*. In a summer or two they are up again as large as ever, and the work must be done over again. Now suppose an experiment is made, and the results watched, so as to know what advantages may be derived from it? Burn the bushes on a single acre after they are cut, and then plow as well as it can be done, say two, three or five inches, and apply some sort of manure—guano, bone-dust, or superphosphate, if other is not to be had. We should prefer the bone-dust, 500 pounds to the acre, and then sow a mixture of grasses, in which white clover seed should make a part. Will some person make this experiment, and let us know whether it proves better than the annual cutting of bushes?

Draining.—Our summer droughts usually afford a fine opportunity in August to ditch and drain the wet portions of the farm. Let it be improved.

Meadow Muck.—No one thing has wrought higher advantages to the farmer, than the exchange of a portion of his sunken swamp land to the high ground, and returning some of the sand and gravel to the low. It greatly benefits both. It is not necessary to recapitulate these advantages here, but only to suggest that the time is at hand.

As an absorbent to the manure heap, meadow muck is worth, at least, $2,00 per cord, where the farm contains what is usually denominated plain land.

California Trees.—The *San Joaquin* (Cal.) *Republican* tells some famous great stories about the mammoth trees of Calaveras County. In one grove of them, it says, there is a first-class hotel well fitted up, and with fine accommodations for travellers. Near the hotel is a building eighty feet long by fourteen feet wide, divided into two fine bowling alleys and built upon the top of a fallen log! The lower part of the log, which is separated from the main portion, is placed on end, and is to be hollowed out and converted into a spacious ball-room more than thirty feet in diameter.

Trees for Railroads.—The *Chicago Press* says that the Illinois Central Railroad Company have contracted for the planting of three rows of locust trees on each side of the Illinois Central Railroad for the distance of one hundred and twenty miles. The rows are to be set eight feet apart, and the trees three feet from each other. In eight years, it is said, the trees will furnish ties in place of those which have become rotten. They will also furnish a delightful shade in summer, and a protection from the snow drifts in winter.

For the New England Farmer.

PREJUDICE AGAINST FARMING.

Messrs. Editors:—Having taken your paper for a year or two, I have become much interested in agriculture, and *long* for the day when I can leave my office and give to it my energies, care and thoughts. To me, no employment seems more ennobling. None, I am satisfied, is more conducive to true manliness, citizenship and strict morality. With the farmers rest the welfare of our nation; with them rest sound morality, patriotism,—all the cardinal virtues and the well-being of the republic. Oh that they were fully aware of all this. Could they *realize* it so, and *feel its truthfulness* in all its length and breadth, a great change would be manifest. Formerly it was thought *dishonorable, low and stupid*, to till the soil. A farmer was an ignoramus, a mere "plow jogger," one with "huge paws" who knew but little, was rough, unlearned, and half-civilized. This impression prevailed to a very great extent. Prejudice had its full sway, and the farmer was spoken of with ridicule and sneers. This silly notion, which prevailed extensively, had a most powerful and injurious influence. No farmer's sons would be a "plow jogger." They were too ambitious to be called dumps, blockheads and ignoramuses. Too proud to till the soil amidst the sneers and jeers of these who "put on airs,"and made it in their line to "look down upon them," they sought other employment. The consequences have been manifest, viz: too much competition in manufactures,in merchandizing, the professions, and so on, and a great *scarcity* of the real and absolute necessaries of life. These things will, in time, regulate themselves. The prejudice which has existed against farmers and farming is rapidly passing away. Ten years have accomplished much; ten more, with the aid of the press and with high prices of products, will do still more. There is, occasionally, however, a deep prejudice against "book" or "newspaper farming." This prevails, in many places, amongst "old fashioned" farmers, and to me it appears so unsatisfactory and so unsound, that I am half inclined to read them a "Caudle lecture" upon it, for it is tantamount to saying, there can be no improvement, no progress; that one man's mind contains all the knowledge there is, suggestions from others are of no account, "we know it all," and therefore shall continue in the "old beaten path", as we have done for years. Our fathers did so and so. Mr. So-and-so did so, and Capt. Success did so too, and what more do you want? "Let well enough alone." Continue to put the grist in one end of the bag, and a stone to balance it in the other, because our fathers did, or Mr. Snipes or Smith did so! This is a changing world, one of progress and *real* improvement. We mever *stand still*, be assured of this, and he who through prejudice or ignorance perseveres in "old notions," when new and *better* ones are apparent, is, it seems to me, "a *little* behind the times." Mr. Progress will, you may be assured, outstrip you. Why not freight by four horse teams at a *dear* price your produce hundreds of miles instead of availing yourselves of *cheap* transportation by canals and railroads? Why not cut all your grain and grass with the hand scythe,—the "old and good fashioned way," instead of using the mowing or the reaping machines? Why not thrash with the frail instead of using any of the modern inventions to accomplish the same result within one-fourth of the time, and with one-half of the expense? Why not sow all of your seeds by hand, instead of using machines? This list might be greatly increased, but enough for the illustration.

Give me, I say, suggestions, give to me the results of others' watchfulness, vigilance, industry and knowledge, give to me the result of many valuable *experiments* by others, which may have cost them hundreds and thousands of dollars to test and make sure, and which are given to us in return for the merest *trifle*.

Let no one get so well-informed as to reject suggestions, none so ignorant as to *fear* to read, reflect and digest. The bee gathers *sweet* from every flower. May we not, in the like manner. gather valuable ideas from others' suggestions and experiments? Like the bee, we can extract the *sweet*, leaving the bitter and poisonous.

Burlington, Vt., June. A Subscriber.

THE RAIN CONCERT.

Millions of tiny rain-drops
 Are falling all around;
They're dancing on the house-tops,
 They're hiding in the ground.

They are fairy-like musicians,
 With *any thing for keys*,
Beating tunes upon the windows,
 Keeping time upon the trees.

A light and airy *treble*
 They play upon the stream,
And the melody enchants us
 Like the music of a dream.

A deeper *bass* is sounding
 Where they're dropping into caves,
With a *tenor* from the zephyr,
 And an *alto* from the waves.

O 'tis a shower of music,
 And Robin don't intrude
If, when the rain is weary,
 He drops an interlude.

It seems as if the warbling
 Of the birds in all the bowers
Had been gathered into rain-drops,
 And was coming down to showers.

The blossoms are all bathing
 In the liquid melody,
Breathing thanks in sweetest odors,
 Looking up into the sky.

C. B.

To Correspondents.—We have now on hand numerous articles from correspondents, discussing with ability a variety of subjects, together with many inquiries, which will all be attended to as space in our columns and opportunity to reply permits. These attentions, by correspondents, are a constant source of encouragement to us, and must result in great benefit to the reader. The *Farmer* was never so prosperous as at the present moment, and we may reasonably impute much of this to the ability and constancy of its large and able corps of contributors.

MARLBORO', MASS.

This ancient town is one of the most beautiful in the Commonwealth. Its people are intelligent, enterprising and industrious, who maintain excellent schools and the ordinances of religion, and in their political predilections are actuated more by the principles of humanity than by a course of policy merely calculated to sustain a party rule, or share in the general honors and emoluments of office.

A portion of the town is quite attractive, from its varied surface, and its excellent and highly-cultivated lands; its sweet pasturage on the hills and its rich grasses that clothe the sweeping meadows. In past-times the cultivated lands have been so admirably managed, and the crops produced so abundant, as to entitle her to the credit of the second best agricultural town in the State! This was a compliment, not only to the industry and skill of her people, but, as we have never known a high degree of agricultural success attained in a licentious or indolent community, it was as much a commendation of the morals and manners of the people. But Marlboro' has other attractions, in the well-arranged and well-finished dwellings of her homesteads—in the fine barns that shelter her ample crops, her noble oxen and prolific cows, and in the productive orchards that covered the slopes of her moist and rich hill-sides. Next to her grass-fields, these orchards *were* the beautiful features which attracted the attention of the traveller, both from our own people, as well as those from more distant lands. Marlboro', then, has been as nearly a perfect little republic as could be found. Adam Smith might have pointed to it as a model. But Marlboro' now, must look well to her laurels or they will be wrested from her!

In visiting the State Farm at Westboro' during the last two or three years, we have had occasion repeatedly to pass through this town, and to notice with some care the evidences of thrift or decline which might meet the eye of the traveller. And the indications of either thrift or decline are obvious to a casual observer; thrift in a fluctuating and uncertain business, which may excite competition between, and bring profit to a few, and decline, in that noble art underlying and sustaining all others, which fosters virtue, strengthens the affections, rears the school-house and the church, and embellishes and beautifies the country. The attention and care of her people are evidently divided. Whether they are generally affected, or mostly those living upon the line of the great roads, we are not able to say.

There is probably no land in New England more favorable to the cultivation of fruit than the hills and broad swells of Marlboro', and none which has produced more profit under a liberal and judicious cultivation. What has been our surprise, then, for two or three years past, to see these noble old orchards defoliated, poisoned, and become loathsome to the sight, by allowing *caterpillars* to fatten upon their foliage, and perpetuate their millions to plague and prey upon them again! How short-sighted must be the notions of economy of any man, who thus suffers a whole crop to be torn from his possession, after the labor and care of many successive years have nearly completed it, to drop in bountiful fruition into his open hands! It is a policy at once discreditable to the noble art in which he is engaged, and to his own judgment.

The labor of an active man for *two days*, divided into periods of two hours each at the proper time, would entirely destroy the caterpillars from an orchard of two hundred trees, and thus leave them free to gladden the heart of their owner and the eye of the traveller, and to perfect the crop of fruit. Two poles of unequal length, with a spiral brush on one, and a bunch of rags on the other, and a bucket of soap suds, are all that is needed. Ply these industriously, morning and evening, for a short time, and the orchard and fruit is safe, at least from the common caterpillar. Yet in the beautiful town of which we have spoken, whole orchards are, to-day, as barren of leaves as they were in March, while their limbs are covered with the web, the exuviæ and rotten carcasses of legions of caterpillars, until they taint the air and become an offence to the nostrils.

Of course, nothing but a crop of sorrow and regrets can be reaped there. If the loss of the present year's crop were all, the evil would be less—but it is not so. The tree loses a year's growth, and the ugly race is perpetuated to come again and torment their propagators.

For the New England Farmer.

GREAT YIELD OF POTATOES FROM ONE BUSHEL OF SEED.

Mr. Editor:—It seems a matter yet undetermined, notwithstanding all the talk, and even all the various experiments that have been made, whether it is wisest to plant large potatoes or small potatoes, cut or uncut, and whether we should "seed light" or "seed heavy." A fact that lately came to my knowledge in regard to the subject of "seeding," and of a very large yield of potatoes for the amount planted, may not be uninteresting to your readers, and, perhaps, may also shed some light on this matter.

As I was visiting, a few days since, the beautiful grounds and very rich and extensive nurseries of my friend, B. M. Watson, Esq., of Plymouth, a fact was communicated to me in regard to a yield of potatoes the last season of severe drought, that struck me as being very extraordinary and worthy of notice. Mr. Elias Thomas, Jr., of Plymouth, cut a bushel of peach-blows—the same, I suppose, with what are called further west Sand-lakes—*into eyes*, and planted them on good land, seeding very lightly. And from that single bushel, thus divided into eyes, what, think you, Mr. Editor, was the yield? No less than *seventy-one* bushels of *first-rate potatoes*. I have this statement from Mr. Watson, Mr. Thomas's neighbor, corroborated by the testimony of other and most trust-worthy individuals. What will some of our most scientific New York editors say to this matter of light seeding, thus illustrated, those especially who are such sticklers for planting the tubers *whole?*

And now, Mr. Editor, I have one question to put to you. Can you tell me if there is any *white* potato that is as prolific as the *red* or *yellow* sort, or that will bear comparison with the Sand-lakes? And can you inform me how the Seal's Foot, State of Maine, and Dover stand in regard to abundant yield? I have never tried either of them very extensively till the present year. Respectfully yours,

JAMES RICHARDSON, Jr.

Kingston, June 16, 1855.

A FEW HINTS ON BUDDING.

A VALUABLE AND TIMELY ARTICLE.

Budding, or *inoculation*, is one of the most general, and, in this country, by far the most important method of summer propagation. This operation consists in removing a bud from the variety to be propagated, and inserting it on another which is called the stock. Its success depends upon the following conditions: In the first place, there must be a certain degree of affinity between the stock and the parent plant from which we propose to propagate. Thus, among fruit trees, the Apple, Crab, Pear, Quince, Mespilus, and Mountain Ash, all belong to the same natural family, and may be worked upon each other. The Plum, Apricot, Nectarine, Peach and Almond, form another natural division, and work upon each other. The Cherry must be worked upon some kind of Cherry, and Currants and Gooseberries go together. In general practice the Apple is worked either upon Apple seedlings, which are called free stocks, or upon the *Doucain* or *Paradise*, which are dwarf growing species, and are used for the purpose of making small trees. The Pear is worked either upon Pear seedlings, which are called free stocks, or upon the Quince, to make dwarfs; occasionally it is worked upon the Mountain Ash and Thorn. But it must be borne in mind that while all varieties succeed on the Pear seedling, a certain number fail entirely on the other stocks we have named. Lists of such as succeed particularly well on the Quince will be found in previous numbers of the *Horticulturist*. The Cherry is worked either upon seedlings of what is known as the *Mazzard*, a small, black, sweet cherry, that form a very large, robust tree; or for dwarfs, on the *Mahaleb*, or perfumed cherry, which is a small tree with bitter fruit, about as large as a common pea.

In the second place, the buds must be in a proper state. The shoot, or scion budded from, must be the present season's growth, and it should be mature—that is, it should have completed its growth, which is indicated by the formation of a bud on the point, called the *terminal bud*, and the buds inserted should all be wood buds. On a shoot of this kind there are a number of buds unsuitable for working; those at the base being but partially developed, are liable to become *dormant*, and those on the point, where the wood is pithy, perish. The ripening, or maturing of the buds, must regulate the period of budding, so that the time at which any given tree or class of trees should be worked, depends upon the season, the soil, and other circumstances which control the ripening of wood. In our climate, plums usually complete their growth earlier than other fruit trees, and are, therefore, budded first; we usually have ripe buds by the middle of July. In some cases, when the stocks are likely to stop growing early, it becomes necessary to take the buds before the entire shoots have completed their growth, and then the ripe buds from the middle and lower parts are chosen. Cherries come next, and are generally worked about the first of August. The buds *must* be mature, or a failure will be certain.

In the third place, the stock must be in the right condition—that is, the bark must lift freely and cleanly from the wood, and there must be a sufficient quantity of sap between the bark and wood to sustain the inserted bud and form a union with it. Stocks, such as the common sorts of plum, pear, and cherry, that finish their growth early, must be worked early; while such as the Peach, Quince, wild or native Plum, *Mahaleb* Cherry, &c., that grow late, must be worked late. If these stocks that grow freely till late in the autumn be budded early, the buds will either be covered up—"drowned," as it is technically called—by the rapid formation of new woody substance, or they will be forced out into a premature growth.

A very great degree of sappiness, in either the stock or bud, make up, in part, for the dryness of the other. Thus, in the fall, when plum buds are quite dry, we can work them successfully on stocks that are growing rapidly. This is a very fortunate circumstance, too. Young stocks, with a smooth, clean bark, are more easily and successfully worked than old ones, and when it happens that the latter have to be used, young parts of them should be chosen to insert the bud on.

In localities where buds are liable to injury from freezing and thawing in the winter, the buds are safer on the north side of the stock, and when exposed to danger from wind, they should be inserted on the side facing the point where the most dangerous wind blows from. Attention to this point may obviate the necessity of tying up, which, in large practice, is an item of some moment.

In the fourth place, the manual operation must be performed with neatness and dispatch. If a bud be taken off with ragged edges, or if it be ever so slightly bruised, or if the bark of the stock be not lifted clean without bruising the wood under it, the case will certainly be a failure. The budding-knife must be thin and sharp. A rough-edged razor is no more certain to make a painful shave, than a rough-edged budding-knife is to make an unsuccessful bud. It takes a good knife, a steady hand, and considerable practice to cut off buds handsomely, well, and quick. As to taking out the particle of wood attached to the bud, it matters little, if the cut be good and not too deep. In taking out the wood, great care is necessary to avoid taking the root of the bud with it. Then, when the bud is in its place, it must be well tied up. Nice, smooth, soft strips of bark, like narrow ribbons, are the best and most convenient in common use. Every part of the cut must be wrapped so firm as to exclude air completely; and this should be done as quickly as possible, as the air soon blackens the inner surface of the new parts that are placed in contact.

We have thus stated briefly, for the benefit of beginners, the chief points that require particular attention in budding, or inoculation. Amateurs, who have little to do, should choose the mornings and evenings, or cloudy, cool days, to do their budding; but nurserymen must work in all weathers, and in all hours of the day; but their superior skill and quickness renders it less hazardous. When only a few stocks are to be worked, and the weather happens to be dry, a thorough watering or two will be of great service in making the bark lift freely.—*The Horticulturist.*

For the New England Farmer.

"TRAINING HORSES FOR THE SADDLE."

To sit on horseback, the rider should retain a uniform position from the waist to the knee. The changes in position and bearing are obtained by the movements of the body above the waist, and of the legs below the knee.

Keeping your seat, depends upon keeping the centre of your weight in a line with the legs of your horse, as seen from front or rear, and, therefore, at the same angle with the ground as his own weight, bears in all his movements.

When the horse, at speed, wheels, he inclines his body to the side he turns to, and thereby resisting the impetus of his velocity in the former direction. If you incline your body with his, you keep your centre of gravity at the same angle with the ground as the horse's weight rests, and are not forced out of the saddle by your own momentum.

The skill of the horseman (acquired by practice,) enables him to anticipate the movements of the animal, and be so placed at every change of motion, that his own weight does not throw him when the horse attempts to dismount the rider.

You communicate your orders to the horse, and inform him of the movement required, by inclining your body toward the attitude you should have when he obeys, and enforce his obedience by the spur or the bit.

If, at a halt, you wish to move forward, or, on the march, wish to increase his speed, a slight inclination of the body forward and drawing back of the feet, will notify the horse of your intention, and place you in a position to apply the spur, and resist the effect of any violent spring that might be made by a restive horse.

The horse, after a little practice, moves without waiting for the spur to prick him. When he obeys, resume your former position.

On the march, if you wish to slacken your speed, or halt, the backing the upper part of the body and putting forward the feet, (more or less, in proportion to the extent of the change,) will notify the horse of your order, and prevent you being thrown forward when he obeys.

He will slacken his speed, or halt, without waiting for the powerful strain of the bit, especially if his mouth has not been calloused by a rider who tries to keep his seat by hanging on to the reins. Be careful not to spur or rein without an object. Let the horse know that no pain follows his prompt obedience.

If you wish to wheel to the right or left, a slight inclination of the body, a pressure of the rein in that direction against the neck, and a movement of the *leg on that side* as to apply the spur, will move the fore quarters of the horse toward and the hind quarters from it. In general, the movement will be done before the rowel touches the skin.

When you leap a fence, as the horse rises on his hind feet, you incline your body forward and lower your feet, to get your weight to the same bearing as his own on the hind legs that support him. Your preparing yourself for the leap when he sees the obstacle, notifies the horse of your intention, and he will spring without waiting for the spurs, which he knows enforce all movements to the front. When the horse leaps, you keep your body in the same vertical position, as he changes his bearing from the hind legs to the fore, bringing your shoulders back and your feet forward, to resist the shock when his fore feet strike the ground. All movements are performed by the horse with more or less rapidity, as the rider's movements are more or less accelerated.

Passaging.—To move sideways at a halt (to close an opening or clear an obstacle,) before moving forward, move the bridle hand toward the object you wish to approach, and apply the *opposite* spur. The horse will then move up without advancing or falling back. As this is the most difficult motion to teach the horse, he should be first well trained in the other movements. He should be trained to close up with other horses, a pace or two from him, or move up to a gate he is to pass through, that he may understand what is wanted.

A horse can be readily trained so that the rider can command his position while seated in the saddle as readily as if he stood on the ground, and with a horse's rapidity added. The horse will change his position to suit the direction you wish to point the carabine or the telescope, as though the rider's eye and the horse's legs were parts of the same body. GUIDON.

For the New England Farmer.

DOES THE MOON INFLUENCE VEGETATION?

MR. EDITOR:—I have read the commentaries in your paper on "lunar influences," and must confess that I do not perceive any good reason for changing the opinions heretofore entertained. I should as soon think of consulting the book of Job to ascertain the influence of Orion and the Pleiades on the growing of Indian corn, or the book of Deuteronomy to determine the effect of the moon on the cutting of bushes. My recollection of the article of February 17, referred to, is very imperfect; but, if I remember right, it brought to mind a remark of the late Col. Pickering on the same subject, which I always thought strikingly expressive. Some facts, more to the point than any yet cited, will need to be produced before I shall be disposed to admit the direct influence of the moon on the growth of vegetables of any kind, or the health of persons. We have quite enough of superlative fertilizers on earth, at the present time, without resorting to the moon for an addition. *

June, 1855.

EXTRACTS AND REPLIES.

THE GRUB WORM.

Will you inform me what is the best preventative for the grub worm upon flower and other roots, and more particularly the former, through your paper, as I am greatly annoyed with them the present season?

Lowell, June, 1855.

Remarks.—There is much complaint of the ravages of the cut or grub worms this season, and the question is often asked, How shall they be destroyed? Who can answer it? On flower roots, or any plants cultivated in small quantities, a personal examination would be effectual, as they may be easily found by a little digging. But no remedy readily applied to fields is known to us.

CURE FOR BLACK LEG.

Wm. Bethel, of Queeche, Vt., says that this disease may be cured by cutting an incision in the "little hollow" above the foot and inserting bruised garlic. He had seen it done. After inserting the garlic, sew up the incision.

WHAT SHEEP ARE BEST?

Mr. Editor :—What breed of sheep will make the most pounds, mutton being the greater object and wool the less? Where are they to be obtained, and at what probable price? What is the best work upon the subject of raising and managing sheep, and where may it be had?

William Irish.

Hartford, Me., June 5, 1855.

Remarks.—Although having had considerable experience in the rearing of sheep, so much time has elapsed since, and so many varieties introduced, we do not feel justified in giving unhesitating opinions on the questions propounded. Among experienced breeders, opinions are somewhat at variance as to what particular breeds are best.

"In the "Farmer's and Planter's Encyclopedia," there is a capital article on sheep. "Youatt, on Sheep, their Breeds, Management and Diseases," is a comprehensive and excellent work, and "The American Shepherd," by L. A. Morrell, giving a history of the sheep, and illustrated with portraits of different breeds, is another. This work also contains many letters from eminent wool-growers and sheep-fatteners of different States, detailing their respective modes of management.

RECLAIMING MEADOW LAND.

Mr. Editor :—I should be very glad to be told the best method of procedure, and what is the best crop for a piece of low, sandy, damp land, and whether chip dust and ashes would be worth drawing in as a dressing for it? Said land is very flat, and is bordered on one side by a mill pond, and is not more than eight or ten inches above the water when the pond is full. You would also oblige me, and some others in this vicinity, by giving the prices of the three small seed drills shown in your paper a few weeks since.

Plymouth, 1855. Ralph.

Remarks.—The best use to be made of such land, is, probably, to get it into grass. Plow thoroughly, and then apply your chip dirt and ashes, which will be a capital dressing. Add other manure, if you can, and work it under; then sow your grass seed. You will remember, however, that *drainage* is the first operation. If the water from the pond backs up and underlies the land you speak of, get all you can from it as pasturage and cultivate somewhere else. The prices of the seed-sowers, which we published a few weeks ago, are $3,00, $6,00, and $10,00 respectively.

HOLDING UP THE MILK.

Mr. Editor :—Will you, or some of your able correspondents, through the medium of your valuable paper, inform a young farmer of the best method of treating a cow which has acquired the habit of holding up her milk? I have tried every thing that I can think of, yet it does no good whatever. She is an extra cow in all other respects, so I do not like to turn her for beef. By answering the above inquiry, you will greatly oblige G. W. C. D.

Hanover, N. H., June 15, 1855.

Remarks.—Feed well, so as to cause an abundant flow of milk, then treat her kindly, and while milking allow her to eat a little meal and water, a handful of fresh grass, or some dainty morsel, and she will soon get into the habit of "giving down" freely.

A PLOW FOR STONY SOIL.

Mr. Editor :—In perusing the May number of the *Farmer*, I noticed an article from a "Tiller of Hard and Stony Soil," wishing to know if there is "a plow in the whole world manufactured for the express purpose of tilling stony soil." I noticed, also, in the same number, several answers, all recommending the Eagle plows of Ruggles, Nourse, Mason & Co. I think them far preferable to the old-fashioned plows; but I have been using, for the past two or three years, a plow invented in this town, and I think for the "express purpose of tilling a stony soil;" if not, I am sure it would be hard getting one that would work better. It is called the Iron Beam Plow, and is manufactured and for sale by Simonds, Durand & Co., of this town. It is a side-hill plow, and, like any other, works better on smooth land than rough; but for stony, uneven, hilly, or flat land, it is certainly the "one thing needful;" and if he or his neighbors should see fit to try it, I think they must be satisfied with the result. J. B. Freeman.

Lebanon, N. H., June 18, 1855.

GREEN LICE ON FRUIT TREES.

Mr. Editor :—Will you inform me of the best remedy for the destruction of green lice on young fruit trees, and confer a favor on S. S. H.

Waterford, Me., 1855.

Remarks.—We have never found these insects essentially destructive to the foliage of trees. They may be destroyed by a sprinkling of whale-oil soap, perhaps common strong soap-suds, or by sifting ashes over them.

PLOWING—MANURING—GUANO.

Mr. Editor :—In looking over the June number of the *Farmer*, I find an article from "Agricola" on plowing, and I wish to ask if he means to be understood that by plowing alone we can raise good crops? As I am not much experienced in farming, I wish to inquire of you, or some one, who will be kind enough to answer the following question: When is the best time to plow, and when should the manure be put on? Should it be before it is plowed, or after it has been plowed, if it is to be plowed a second time?

If guano will kill plants, if too much is applied, will it kill the brake that grows in our pastures? If so, will any thing else (as grass) come in to take its place?

In plowing land, is it best to work on one piece until it is fit to sow or plant, or let it lay and warm before it is further worked upon?

Is it beneficial to roll land when it is sowed, whether it is lain down to grass or not?

A Subscriber.

Ludlow, Vt., June 2, 1855.

Remarks.—The above are questions of importance, and we should be glad to have "Agricola" reply to them himself.

HOW SHALL I USE BLACKSMITH'S CINDERS?

Mr. Brown :—Will you, or some of your correspondents, through the medium of your paper, inform me the best use which I can make of some ten cart-loads of cinder and dirt, such as is usually thrown out of a blacksmith's shop? What kind of soil will it benefit most, wet or dry, light or heavy? Or what crops is it best adapted to as a dressing? Will it be useful to put around apple and other fruit trees?

Chester, N. H., 1855. L. F.

Remarks.—Will some correspondent reply to these inquiries who has a practical knowledge?

Uses of Tobacco.—In the United States, physicians have estimated that 20,000 persons die every year from the use of tobacco. In Germany the physicians have calculated that, of all the deaths which occur between the ages of 18 and 26, *one-half originate in the waste of the constitution by smoking.* They say that the article exhausts and deranges the nervous powers, and produces a long train of nervous diseases, to which the stomach is liable, and especially those forms that go under the name of dyspepsia. It also exerts a disastrous influence on the mind.

For the New England Farmer.

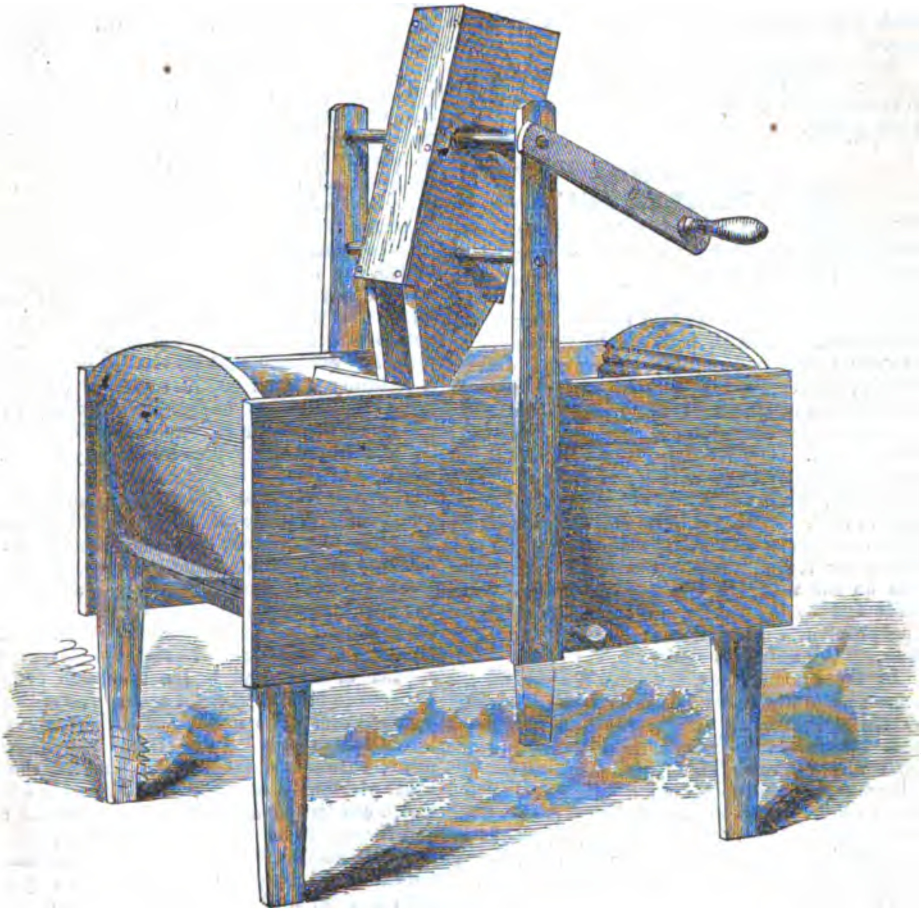
AGRICULTURE IN MAINE.

Mr. Editor :—I have penned a few facts in regard to the agricultural interest of Maine, which you are at liberty to publish, if you feel so disposed. The present extravagant price of breadstuffs has at length aroused the farming comunity of this State from their agricultural lethargy, to a consciousness of their dependence on the southern and western States for bread. And they have resolved that if provisions retain their present prices another year, to be the gainers thereby. There has been more planted in Maine, this year, by one-third, perhaps I may be justified by saying one-half, than any previous year for ten years past; and I am led to suppose that Maine will now take a deeper interest in farming than she ever has before, from the fact, that for years past the agricultural portions of our State have had other resources than farming,—that of lumbering. Lumbering has been the chief cause of the neglect which a very large majority of our farms exhibit. That, however, in most of our farming districts, is growing scarce. This, with the present high price of provisions, renders it highly necessary that our agricultural friends should take more interest and display more energy in farming than they have heretofore. A very large portion of our land has become exhausted and almost worthless from continually taking away from the soil, without returning anything in the shape of manures. Consequently an extra effort will have to be made to renovate such lands. Another hindrance to the promotion of agriculture in this State is, that a great many who farm it are decidedly behind the times. You talk to them of *muck*, which is a very common fertilizer, and they will deny its fertilizing qualities, and pronounce it one of the humbugs of book-farming.

Last winter I hauled a load of sawdust from a neighboring mill to litter my cattle with. One of my neighbors was present, who, perhaps, had farmed it fifty years; he inquired what use I should make of it; on learning that I was going to bed my cattle with it, he expressed much surprise, and inquired *if it would not spoil the manure*. There is an immense quantity of swamp land in Maine, which might be cleared and drained, and rendered very valuable as grass lands, which are considered by many as worthless, and are left for foul weeds and all kinds of shrubbery to spring up and *decorate* the farm.—There are some, however, who appreciate the value of such lands, and are not afraid of investing a sum requisite to reclaim them into fine meadows of grass, which amply pay for their time and trouble, and a good profit besides.

Maine has every facility for becoming one of the first farming States of New England. Her soil is good—her sons hardy. But farming has been considered, here as elsewhere, a low occupation, and those that till the soil have been looked upon as little better than the slaves of the south. They begin, however, to look at it in a different light, and the time is not far distant when it will be considered a *science*, and brought on an equal with other professions. J. M.

Searsmont, Me., June 15, 1855.



WHEELER'S PATENT WASHING MACHINE.

We have said a good deal in the *Farmer*, we confess, about plows and pitchforks, hoes and harrows, mowers and reapers, and various other machines and implements which tend to expedite and make easy the labor of the farmer. But to help her who bears up the other end of the yoke, and without such even draft every thing goes askew, we have said but little, because, indeed, we did not know what to say. But now, Eureka! we have found it. Half of the Washing Days knocked out of the year! the women good-natured because their work is done rapidly and easily, the children well-cared for, and the husband's face beaming with smiles in consideration of snowy shirt-bosoms and dickeys, and his wife's unusual elasticity of spirit. As Sancho invoked blessings on the man who invented sleep, so do we on Mr. Wheeler, for his machine.

"Rub, scrub, rub, scrub,
Scold, scold away"—

there's nothing of this about our domicil *now;* but bless the women—we mean Mr. Wheeler—if one is a little late at breakfast on a Monday morning, he would scarcely know from appearances that such an operation had been thought of by any of the family for a month.

The cut above is a truthful illustration of this machine. The clothes are put in at each end of the tub, and the turning of the crank impels the dasher forward and backward, giving a complete fulling-mill stroke, so that the clothes are not rubbed at all. We know that the machine has the following merits, from actual experiment and observation :—

1. It saves a third of the time.

2. It saves the washer from sweltering over hot suds.

3. It wears the clothes very little.

4. It is easier, every way, to do the same work with this machine than to rub them with the hands.

We recommend it, heartily, to every family who has washing to be done. The price we believe is $10.

For the New England Farmer.

SMALL POTATOES AGAIN.

Mr. Editor:—I have just been hoeing some small potatoes, that have come up well and look just as large as large potatoes do when they sprout; and, having got enough of that exercise, I will attend to the next field I meet—last week's *Farmer*—not all small potatoes, by the way.

Your correspondent, Mr. Poor, has differed widely, both from my opinion and yours. As his article contains, as I think, several fallacies, common to reasoning on agriculture, I will notice it at length. And the first is, "that there is but one right way" to do a thing in farming. This is a prolific source of trouble, but has no foundation in fact. Nature is by no means as niggardly of her means as men would make her. The provision for reproduction in the potato shows she can do the thing in two ways at least—by the balls and by the tubers. We should like to see the proof of that statement of "but one right way." All nature is against it.

In the second place, I cannot answer for the season when my father raised his small potatoes; (I did not come up that year;) but it was such that his neighbors raised good crops, and his land was the same kind usually planted. The "large seed" was not given as the *cause* of the small result, but to show that large potatoes did not of necessity secure large potatoes, nor small ones small. Why they grew small, I am as ignorant as need be, and, if your correspondent can show a reason, I will give him all the data in my power. *Theoretical speculations will not invalidate a fact;* and this involves another principle of great importance to the farmer,—that he *depends on facts wholly*, and on SPECULATION *none at all*. The diversity of opinion arises from imperfect generalizations and crude speculations *not a little*.

In the third place, one large potato did not furnish my neighbor with half the vines my small ones did me. If 20 or 30 stalks overstock a hill, 40 or 50 would still more, and I had the most vines and potatoes also. I cannot say how many shoots either of us had, but too many, I presume.

In the fourth place, the potato is indigenous to the mountainous regions about the head of the Amazon, as well as elsewhere. There the native growth exists wild, to which I refer, and there no large tubers are found. Hence, large tubers are of artificial growth, as well as large cabbage heads. But I named this not as a reason, but an illustration.

I have not attempted to prove small potatoes better than large ones, but to ascertain, *by facts*, if they are as good. And this is a question of fact. Our planting plump grain has no bearing on this question, for the good reason that grain is not potatoes, and their botanical character and physiological structure and functions are so different, that no conclusion of this sort drawn from one will apply to the other. I cannot here enter on the discussion of this subject. The other illustrations, *so far as applicable* to potatoes, are just as much in need of a decision as the potatoes. It is but borrowing one hypothesis to prove another. My allusion to the natural growth, &c., was simply to show that the diseases of the potato were not attributable to planting small potatoes. Every botanist is aware of the tendency of all our cultivated plants to resort to their original type, and the fact of their doing so, shows the artificial character of large growths, for the most part. These that have thus reverted, are no less perfect in respect to vitality and the specific character of the plant. I am not aware that the chemical composition of the small potato is different from the large one. Nor is there any evidence that its vitality is proved. It is certainly a tendency to revert to its original type, and does not imply any deficiency in the power of the tuber to reproduce. The question is, will it as *well reproduce large potatoes?*—a question of *fact*.

The only fact to which your correspondent refers—the practice of Long Island farmers and Mercers—is indefinite, and only proves that large potatoes will produce large ones, under favorable circumstances, a fact which is not new; but the question is, will not small ones also? I last year planted some potatoes, called here the New York potatoes, of large size. I finished in a hollow by a piece of corn, and had not enough to finish. I therefore planted about a square rod with *small* peach-blows. The hollow, in all, covered about three square rods. I dug from it, by measurement, between nine and ten bushels, the two kinds yielding about equally. From the whole I sorted out less than a half bushel of small ones, and these were as plenty from the large seed as from the small. This plat was excellent land for potatoes, and my conclusion coincides very much with that of a thrifty farmer, whose opinion I asked on this point. "Large potatoes," said he, "are very good, and I don't know but small ones are just as good; but the *best thing is to have the ground in good condition.*" S. P.

For the New England Farmer.

YOUNG APPLE TREES DYING.

Mr. Editor:—I am this spring suffering the loss of some 15 to 25 fine young apple trees, from 2 to 5 inches in diameter.

I have recently learned that like losses have been extensive, embracing ornamental, as well as different kinds of fruit trees. I wish, with the aid of yourself and your numerous readers to, account for this loss. I have made no observations beyond my own farm. Those trees which first attracted my attention were situated near a wall, and were for a long time during the winter imbedded in a snow-bank some 4 or 5 feet deep, which lay upon unfrozen ground. I noticed no indications of decline until the leaves were partially expanded and presented an unhealthy look. On examination, the trunk was found to be destitute of any lively bark from the limbs to within 3 to six inches of the ground.

These trees were immediately engrafted very near the ground and are now doing well. A week later others were discovered farther advanced in foliage but destitute of lively bark upon the trunks. As late as the 11th inst., others still were discovered loaded with the richest foliage and well formed fruit, with no indications of decline, and yet the trunk of the trees was covered only with a dark moist dead bark.

I have desisted from engrafting these last, for the purpose of observing their further progress in decline.

My theory at first was, that the heavy body of snow upon unfrozen ground, had occasioned a slight movement in the sap in the trunk of the tree, and the intense cold following in quick succession, the heavy thaws had frozen the trunk as low down as the snow had been removed, while the circulation had not extended into the limbs at all. This theory was somewhat satisfactory to me, until as late as the 11th inst., I find other trees with dried trunks and yet loaded with the richest foliage and well formed fruit. I am now confounded, and await the discussion of the subject in your columns. N. F. Emerson.

Chester, N. H., June 16, 1855.

Remarks.—We have seen some of the trees spoken of by our correspondent, and others, in different localities, affected in the same manner. Can some of our intelligent tree-growers give the cause and a remedy?

For the New England Farmer.

HAWAIIAN AGRICULTURE.

Makawao-Maui, Hawaiian Islands,
March 8th, 1855.

Editors New England Farmer:—*Gentlemen*,—In my last communication, June, 1854, I told you of the wheat crop which we were then harvesting, and of one of Hussey's reapers which was marching through our fields. Before I shall have occasion to speak of another crop of this precious grain, let me tell you of the value of the crop of 1854, and of the disposition which we made of it.

I may say, in a word, much of the crop of 1854 was injured by the rains. A portion of it was utterly ruined, rotted in the field, and scarcely a bushel of what was saved was as good as usual. When the flour made of the first lot of wheat, which was sent down to the mill at Honolulu, was made into bread, there was a great outcry. The bread was neither white nor sweet. Serious damage to the credit of Hawaiian flour seemed for a time to be unavoidable. And though the character of some lots of wheat, which were ground afterwards, was such as to retrieve, in part, the reputation of Makawao as a wheat country, still suspicion and doubt rest on many minds as to the success of the enterprise. Much of the wheat which we designed for seed is injured, some by heating, and all by the weevil, so that only about six-tenths of it will come. You mistook me as saying that early sowing was a preventive of the weevil. Dry weather during harvest and till threshed, with a small quantity of good air-slacked lime, will do much to prevent the ravages of this insect; at least, it did so last year. But this year, rains during harvest, and more or less while threshing, caused so great dampness of the grain, that the whole body became damp, and this heat and dampness generated the weevil in great numbers. How many of them have fallen on my desk and on this sheet since I commenced writing, it would be impossible to tell. I am not certain that the lime did not do more hurt than good this year, on account of the dampness of the grain. At any rate, I am not exactly satisfied with the experiment of last year.

The steam flouring mill—said to be an excellent one—commenced operation early in June. The price paid for wheat at first was 2½ cents per pound. This, however, was not paid after a few weeks. The company soon threw off one-fourth of a cent, then three-fourths of a cent more, and some has been sold as low as one cent. And even at this low rate the company will, doubtless, sink money this year. One of the shareholders told me that they should probably sink some six thousand dollars. This estimate, however, may be rather high.

You can easily see that there is some ground of discouragement in relation to Hawaiian flour. Wheat can easily be raised, and wheat of an excellent quality. The experiment has been fairly tried. Even last year, the wheat was much of it of large growth and good kernel. Some of it yielded about forty bushels to the acre. But harvesting and curing the crop will be the difficulty. We have no barns nor granaries; of course we have to stack our wheat. In dry seasons, this method answers very well. In good season, say September, we can thresh the grain, (all that we can spare,) and send it to Honolulu, though at some risk, from the sea-leaky vessel or wet passage. What we need for seed we can leave in the stack till sowing time, and if the wheat was thoroughly dried when stacked, there will not be many weevils in the seed. This year, now that the season for sowing has returned, we find the seed poor and full of weevils. We could not keep what we threshed in early autumn, though more than usual lime was thrown into it, and it was put into a large and dry room. The weevil has become such a nuisance, that I cannot consent again to store it in the house. We need such a granary as I see described in the *Country Gentleman*, of December 14; but we have not the means of building such an one at Makawao—at least, *I have not*. Fences and buildings of some kind for wheat, corn, beans, &c., are indispensable to success in farming, here or elsewhere. We lack stone at Makawao for building wall, and the wire fence is very expensive.

We are now near the middle of March, but considerable wheat remains to be sown. Not more of this grain will be sold this year than last, but much of it will be put in in better style. The excessive rains of last year caused so rapid a growth of vegetation, and prevented the possibility of burning it, that we find it a great deal of work to prepare the ground decently for a crop. The winter rains, too, are copious, so that there is danger that we shall find the season too short for sowing all that we desire. Some of the neighbors, who sowed a good deal last year, do much less this. Others do nothing; though several foreigners and some natives, who have done nothing hitherto, are now sowing, so that we shall have about the same number of acres as in 1854. How much of it will be secured remains to be seen, and how we shall get it ground is another question, seeing the mill is on the island of Oahu.

Had I engaged in the business of wheat raising with the sole or even chief view of making money, I should not be a *little* mortified, but greatly so, with my want of success, for I have, thus far, failed to clear any thing. My chief object, however, was to introduce the grain into the country, and persuade my people to cultivate it. In this I have succeeded, and I am more than content. I am thankful. One of my people was quite successful the last year, there being less rain on his place than in my immediate neighborhood. The same man has some fifty acres, which look exceedingly well. Had the mill for flouring been put at Wailuku, where it was designed at first to place it, so that we could obtain the grinding of our wheat without sending it to sea, I should feel quite whole, after all, on the subject of wheat. I still hope that all in good time we shall have a small flouring mill at that place, where the water privileges are favorable, or perhaps a wind-mill at Makawao, where we raise the precious grain.

You know, I suppose, that I am pastor of the church at this place, and that, of course, I have many cares and much labor devolving upon me. My appropriate work I may not neglect for any temporal consideration whatever. Did I not think that my efforts in the agricultural department had an important bearing on my ministerial labors in elevating the people from their low condition, teaching them industry and thrift, and giving them stronger motives for exertion of the right sort, I would cease at once all attention to business of this kind. I am, besides, unable to toil as formerly, having a maimed hand. The loss of my right hand thumb does not prevent my writing, though I write with pain, but it prevents my doing a thousand things which I have been accustomed to do. I cannot pick up a nail, cannot use the axe, the saw or the plane, and scarcely the hoe or the sickle. Still, I can oversee the labor of the farm as usual, and can commend the cause of agriculture to the increased attention of my people. Our Hawaiian Agricultural Society, formed some two years since, will unite with one recently formed at Wailuku, and there will be an exhibition of some sort in the course of the season. If we shall succeed, you may expect to hear from us all in good time. We on Maiu find it of little use to belong to the Royal Hawaiian Agricultural Society, which holds all its meetings and has all its exhibitions, fairs, &c., at Honolulu. Nothing of the cattle, sheep or swine, nor even of the fowl kind, can we present for competition. It is time that we had an efficient society of our own. I have never more deeply felt the dignity and importance of agricultural pursuits than I do now. Noble employment! It is *the business* which, so far as this world is concerned, makes man a co-worker with God in providing for the wants of his almost innumerable family. Would that every husbandman felt the dignity of his labor.

Yours with much respect, J. S. Green.

WOMAN.

BY WILLIAM LEGGETT.

No star in yonder sky that shines
Can light like woman's eye impart;
The earth holds not in all its mines
A gem so rich as woman's heart;
Her voice is like the music sweet
Poured out from airy harp alone;
Like that when storms more loudly beat,
It yields a clearer, richer tone.

And woman's love's a holy light,
That brighter, brighter burns, for aye;
Years cannot dim its radiance bright;
Nor even falsehood quench its ray;
But like the star of Bethlehem,
Of old to Israel's shepherds given,
It marshals with its steady flame
The erring soul of man to heaven.

THE TRUE VALUE OF THE MINERAL ELEMENTS OF THE SOIL.

We hear so much said by chemists and men of science, about minerals and their importance as fertilizers, that, without stopping to think, we should almost be led to believe that these were the only elements of nutrition needed by vegetables. We are told of the wonderful effects produced by the application of the various salts of ammonia, potash, soda, lime, silex, iron sulphur, &c., to the soil. We are pointed to analyses of vegetables, shewing the percentage of these elements contained in their composition, and we are almost ready to imagine that vegetables may be manufactured in the laboratory, out of the elements. Indeed, we should hardly be surprised to hear, one of these days, that Prof. Mapes had taken out a patent for manufacturing them in a wholesale way. We hope when he takes out his patent for the manufacture of corn, he will give it to us in the shape of the whole grain, and not in the shape of flour, or we shall be very apt to suspect that it contains an excess of *superphosphates*.

But to be serious, mineral elements are doubtless of indispensable necessity to the healthful and vigorous growth of plants. They will not be perfect in all their parts without a due proportion of such salts as their several constitutions require. But these elements are not all which they require. The staple food of plants, that from which they derive their chief nutriment and support, is the carbonaceous matter, which is called *humus* or *earth*, *par excellence*. This is composed essentially of decayed vegetable and animal matters. These contain more or less mineral matter which previously existed in the vegetables of which they were composed when they were in a living state. But after all the talk about minerals, the great object of the cultivator must be to obtain an abundant supply of decayed straw, leaves, wood, peat, and the excrements of animals duly mixed and combined, and apply them in a proper state, and at the proper time to the soil, for his plants to feed upon. If in *addition* to these, he will apply such mineral elements as are adapted to the wants of the soil, or the particular plants which he cultivates, they will undoubtedly contribute to their more rapid and perfect development.

The attempt to feed vegetables on mineral manures alone, would be much like attempting to feed a man upon pepper, salt, mustard, vinegar and sugar, and omitting the pork, potatoes and meal. The seasoning is all very well, nay it is important. It assists digestion; it stimulates the various secreting organs; it promotes appetite; it renders the food more palatable. But seasoning alone will not do. There must be something to season. Such an attempt to save the pork-barrel, meal-chest, and potato-bin, would prove poor economy in the end. He will dig more mud and lay more wall on plenty of beef and potatoes and bread, than on all the condiments which the most skilful French cook can combine, or on all the spices of "Araby the blest." The application of this any one may make for himself.

For the New England Farmer.

A VARIETY OF SUBJECTS.

Mr. Editor:—I propose to offer for insertion in your very interesting and useful paper, a few brief articles on the following subjects: "Design and Usefulness of Labor; Antiquity and Dignity of Agriculture; Increased attention to Agriculture, and its connection with Chemistry; Ours, an age of Improvement; Means of Improvement; Agriculture an extensive and progressive Science; Good and bad Farming contrasted."

Without wishing to be obtrusive, or to appear learned or dogmatical, I should like to say something, in a very plain way and as concisely as possible, upon each of these topics. For my object is not to acquire reputation as a writer, or to magnify myself as a philosopher, but to do good to the common class of readers, for whose use and benefit your paper is especially intended. I wish to awaken in the minds of farmers and of farmers' sons a more general interest in the cause of agriculture, which I regard as the foundation of all other useful employments. For, though agriculture is as old as the creation, and has been the employment of the great mass of men in every age, yet so strangely has it been conducted, even down to our day, that, as a science, it is yet but in its infancy. In other words, it has not kept pace with the improvements which have been made in all other employments.

Not wishing to take up too much of your valuable room at any one time, I have thought it advisable to present what I have to say in separate articles, each article covering less than two-thirds of a column in your paper. I do not expect, in so brief a manner, to do justice to these topics, or to present them in a very new or striking light, but simply to give the results of my own reading, observation, experience and reflection. It is by comparing together different thoughts and results, that we approximate to the truth. As "one swallow does not make a summer," so the success of one experiment is not sufficient to establish a general truth. But, when the observation and experience of all confirm the self-same thing, the result is certain. What is needed upon these subjects is more light, more experience, more practical knowledge—something that can be understood and appreciated by all. When this further light and knowledge shall be attained, and spread abroad through the community, so that every farmer shall thoroughly understand the science of his own calling, *then*, and not *till* then, will the grand object for which we are laboring be accomplished.

Warwick, 1855. John Goldsmith.

Remarks.—We are under especial obligations to friend Goldsmith, not only for the excellent articles enumerated above, but also for the privilege of using them when it is convenient for ourselves. We shall give them from time to time, and are confident that the reader will find them both pleasing and instructive.

SPECIAL MANURES FOR FRUIT TREES

As a general rule, some kind of compost made of common yard or stable manure, is best and most reliable for fruit trees. Successive layers of turf, or of muck and turf, in connexion with one-third or one-half manure, and a small quantity of ashes, worked together after lying a few weeks, will be found admirable in nearly all cases, if used in proper quantities. But in rare instances, a special application proves of eminent advantage. An example of this sort occurs in the statement of the Shakers at Harvard, Mass., published in the Patent Office Report. The soil is clayey, but the trees grew poorly. They applied all the special manures suggested by experiments or reading, until observing the effect of urine on an unthrifty apple tree, they were induced to try it on pear trees that remained unthrifty in spite of iron, bone-black, ashes, lime, and high manuring. "The result was, the trees shot up a growth as luxuriant as weeds in a hot-bed. Those which had rarely made an inch of growth in a season, grew scions from 18 inches to three feet even, in the summer following the operation." The mode was to apply about two quarts, sprinkled around each tree at a time; to stir the surface of the earth a little, so that it may be well mixed, and prevent the formation of a crust. A cloudy day is recommended. The operation is repeated a month afterwards; and again on those trees not showing a satisfactory result. Caution is needed not to over-stimulate —the quantity must of course vary with the size of the trees, but we are not definitely informed in this respect. The full effect is not confined to the first year. What particular ingredient, or rather what particular form of at, contained in this application, not to be found in ordinary manure, produced so extraordinary results, we leave for theorists to determine, if they can do it with certainty.—*Country Gentleman.*

For the New England Farmer.

EXPERIMENTS WITH POTATOES.

Mr. Editor:—Having read from time to time in your paper others' experience in potato raising, I will send you a short chapter in mine, which you may publish, if you think it worth a place in your columns.

In the month of May, 1853, I broke up about half of an acre of moist land, soil a dark loam, with a light marly subsoil, plowed from ten to twelve inches deep, so as to turn up from two to three inches of the subsoil; manured the same by putting a small shovel full of compost in the hill. Hoed them the latter part of June, and dug them the first of October, getting but a small crop, it taking from 60 to 80 hills to make a bushel.

In September, 1853, I broke up a strip on each side of the above, in the same manner as in the spring, making a little short of one and three-fourths acres in the whole; let the whole remain until May, 1854, when I gave the whole piece a thorough harrowing. Then carted and put on and spread 44 cart loads of green stable manure, each load containing from 25 to 30 bushels. Cross plowed the piece, and turned the manure in from eight to ten inches deep. Furrowed the same north and south, as near three feet apart as I could without measuring. I then commenced on the west side of the piece, and put a small shovel full of compost (made of one-half meadow mud and the other half stable manure,) in a hill, and put the hills two feet apart. I then commenced next to the meadow, and planted four rows without any particular order, as to the amount of seed. The next two rows, I put two good sized potatoes in a hill, the smallest being as large as a hen's egg. The next two rows, I put two half potatoes in a hill. I then manured about an acre with manure from the hog-yard, and planted it with corn. I then commenced on the other side of the corn to plant potatoes, the land lying a little higher, and not quite as good soil. I then manured two rows with leaves from the forest that had lain in the calf-pen until they had become well-wetted with urine, and thrown out from time to time into a heap; put as many into a hill as I could make lay on a common iron shovel. The two next rows, I put from a pint to a quart of wood ashes in the hill. The remainder of the piece I manured with compost, as on the other side. I ran a small harrow between the rows three times during the month of June, and hoed the corn three times and the potatoes twice, without making much of a hill; the rows were not far from seventeen rods long, north and south, there being no rows the other way.

I dug my potatoes the last of September, and from twenty hills from the two rows with two seed potatoes in a hill, I obtained 69 lbs. 10 oz. of good sized potatoes. From twenty hills from the two with one in a hill, 64 lbs. 6 oz. From twenty hills where I cut the seed and put two halves in a hill, 64 lbs. 2 oz. From the acre of corn I had a very large growth of fodder, and obtained 80 bushels of ears of good sound corn, a part of the piece being injured by the drought, so that it did not fill well, not having half as much corn in quantity, and not so good a quality, as on the other part. From twenty hills of the two rows manured with leaves from the calf-pen, I had 60 lbs. 6 oz. From twenty hills manured with ashes, 43 lbs. 14 oz., and from twenty hills from the two rows adjoining, manured with compost, I obtained 50 lbs. 4 oz.; but it must be remembered that the soil was not so good where these last grew as on the other side of the corn.

I cut the top stalks from the corn not injured by dry weather, while the other part I cut up and piked about the same time, which was not far from the 20th of September. Upon the whole I think I obtained a good crop, for our hill lands, and I will send you my account of labor, &c., with the amount of crop, which you can publish, if desirable.

	Dr.
To 2 days plowing in the fall, with 2 boys, oxen and horse	$6,50
1 day harrowing in spring, with boy and oxen	1,50
44 loads of green manure to spread	44,00
3 days labor with oxen to cart manure	6,00
2 days, with boy and oxen, to cross-plow	4,00
1 day labor to spread manure	1,50
14 loads compost manure	10,00
1 days labor with oxen to lay out manure in hills	4,50
16 loads hog manure	16,00
4 days with boy planting	5,50
3 loads other manure for squashes, cabbages, &c	3,00
1½ days labor with boy and horse to harrow among crops	2,25
10 days labor hoeing potatoes twice, corn three times	12,50
8½ bushels of potatoes planted	4,25
Corn and beans to plant	0,50
1 day labor cutting and binding top stalks	1,25
¾ day labor cutting and piking corn	1,00
1 day labor cutting corn and drawing to barn with oxen	2,00
Labor husking corn	3,00
8 days labor digging potatoes	8,00
½ day labor digging ruta bagas	0,50
½ day with oxen to draw pumpkins	1,00
¼ day with oxen to draw cabbages	0,33
1 day labor to pull and thresh beans	1,25
Cutting and carrying corn fodder to cows	1,00
Total expenses	141,06

	Cr.
By 40 bushels of sound corn	$40,00
5 bushels of soft corn	2,00
1 ton top stalks	10,00
1 ton fodder cut up at roots	8,00
1 ton husks	5,00
4 loads pumpkins	4,00
1½ bushels white beans	2,25
1 wagon load of cabbages	2,00
25 bushels ruta bagas	4,17
10 square rods corn fodder given green to cows	3,00
135 bushels potatoes	67,50
Small lot melons and squashes	1,25
Total value of crops	$149,17
Deduct expenses	141,10
Leaving in my favor	$8,07

to pay for use of land, which is left in good order for spring grain, which I intend to sow with wheat and barley, (without manure,) as soon as the season will permit. I will, if spared, send you the result.

Yours truly, Henry Barber.
Warwick, Mass., 1855.

Facts about Milk.—Cream cannot rise through a great depth of milk. If, therefore, milk is desired to retain its cream for a time, it should be put into a deep narrow dish; and if it be desired to free it most completely of cream, it should be poured into a broad, flat dish, not much exceeding one inch in depth. The evolution of cream is facilitated by a rise, and retarded by a depression of temperature. At the usual temperature of the dairy, 50 degrees Fahrenheit, all the cream will probably rise in thirty-six hours; but at 70 degrees it will perhaps rise in half that time; and when the milk is kept near the freezing point, the cream will rise very slowly, because it becomes solidified. In wet and cold weather the milk is less rich than in dry and warm, and on this account more cheese is obtained in cold than in warm, though not in thundery weather. The season has its effects. The milk, in spring, is supposed to be the best for drinking, hence it would be best for calves; in summer it is best suited for cheese; and in autumn the butter keeping is better than that of summer—the cows less frequently milked, give richer milk and consequently more butter. The morning's milk is richer than the evening's. The last drawn milk of each milking, at all times and seasons, is richer than the first drawn, which is the poorest.

THE FARM ELEPHANT!

In reply to our inquiries, some time since, as to the amount of provent required per day by Mr. Barnum's *Farm Elephant*, he has sent us the following interesting note, with a postscript respecting soaking potatoes in *copperas* water.

The Farm Elephant—Copper Bottom Potatoes.

Bridgeport, Ct., July 7, 1855.

Editor of New England Farmer: — *Sir*,—In answer to your inquiry in regard to the diet and weight of my working elephant, I would state that he eats on an average one bushel of oats and one hundred pounds of hay per day, Sundays and all! His weight is 4700 pounds. He will accomplish any kind of work set before him, and uses ten times better judgment than three-fourths of the "help" which I am obliged to employ on my farm. Above all things, he is not an *eye-servant*. Once set him at work piling wood, picking up stones, or any thing else, and you can leave him without fear of his playing "old soldier" in your absence. Another capital negative quality is, that he dont pick up his duds and start for home exactly at six o'clock in the afternoon, as many other farmers' "assistants" do. He is willing to labor till sundown, and even later, if work is pressing. On the whole, he is a very honorable, industrious, intelligent and well-behaved farmer; nevertheless, I cannot conscientiously recommend elephants as the *cheapest* workies on a farm. They cannot work in cold weather, and of course would eat themselves up, trunk and all, in a single winter.

Truly yours, P. T. Barnum.

P. S.—Do let me improve this opportunity to caution my brother farmers against "believing all they read in the papers." About planting time I read in a newspaper that a sure preventive of the potato rot was to soak the seed potatoes in water with an ounce of sulphate of copper to the gallon. I tried it, and it *did* prevent mine from rotting and from *chitting!* After they had been two weeks in the ground my man dug them up, and found them sound inside, but as dry and hard as a bone on the outside, with not the slightest prospect of their ever exhibiting any natural signs of life. They were perfectly "copper fastened!" Luckily I only experimented on a small portion of my potatoes, and discovered the joke in time to remedy it by planting potatoes in their natural state. P. T. B.

THE WORKING OF COWS.

Why should not *cows* work for their living, as well as other females—animal and human? We were visiting a friend the other day, who owns a small farm, and manages it well; and, in the course of our observations about his premises, he called our attention to a large calf, the largest one we ever saw at the early age of two days old. It was a beauty. We wanted also to see the cow that produced such fruit. He showed her to us. She was a good conditioned cow, but only of the ordinary size. He then remarked that the cow belonged to a yoke of cows, which, with two other cows, yoked, had done all his farm work for several years past,—hauling wood, drawing stone, plowing green-sward, harrowing the ground, hauling manure, &c., &c. They worked as kindly and *more* actively than oxen, and appeared in as good plight, and produced as good calves, and gave as much milk as any *lazy* cows, that did not work. He is quite sure that a small farmer, who has no *very* heavy work to do—such as logging, &c., had much better keep four cows, and teach them to work, than to keep two cows only and one yoke of oxen. The expense is less; he will get more milk, and will be able to perform as much work. Of course, if he works his cows, he will give them extra keeping; and this will enable them to give as much milk whilst they work as less well-fed and more idle cows will give. The females of our own species work, and some of them work as hard as men; the females, too, of the horse genus, equal their mates of the other sex in the service of man; why, pray, should not cows also be made to perform such operations as may be consistent with their health and usefulness in other respects?—*Drew's Rural Intelligencer.*

For the New England Farmer.

HOW TO KILL TICKS.

Mr. Editor:—In the June No. of the *Farmer*, a subscriber wishes to know the best way to kill ticks on sheep, and thinking the remedy used here preferable to the one you recommend, I give it.

Take tobacco, about 10 pounds to 100 sheep, and boil in water until the strength is extracted, reduce the liquor if too strong, (about 8 pailsfull of liquor to 10 pounds of tobacco is the right proportion,) and dip the lambs into it all over, taking them out quickly squeezing out the liquor from the wool. After the lambs have all been thus treated, put the old sheep into a close yard in as small a space as can be and throw the remaining liquor over them with a pail. The application should be made in a dry day and immediately after shearing. One application will kill every tick without any injury to the sheep. Most of our sheep-growers consider tobacco beneficial when sheep are not infested with ticks.

making them healthy and less liable to disease. I treat my flock yearly, although I seldom see a tick.

I send you a sample of wool taken at random from a fleece, taken off June 1st, from a two year old buck, with the weight of sheep and fleece. Sheep weighed before shearing, 117½ lbs., fleece; 14 1-16 lbs. of *well washed wool*, of one years growth *only;* breed, from "Native American" Merino descended from stock imported from Spain, many years since. If any of your readers can beat this, I should like to hear from them.

J. B. Proctor.

Rutland, Vt., June 11, 1855.

Remarks.—The sample of wool before us is very beautiful, and shows, with the above description, to what a degree of perfection our sheep-growers have brought their fleeces as well as mutton. We should feel obliged to Mr. Proctor for a dozen samples of wool taken from the various breeds of sheep in his neighborhood, with a brief description of each sample.

For the New England Farmer.

LIGHT FROM THE GRANITE STATE.

Mr. Editor:—After living in the Old Bay State the most of my days, and getting my living by farming, I find myself here in the Granite State.

Looking out over the country at the close of a dry season, when vegetation suffered so much, I find the agriculture of this portion of the State needs a reform. The farmers around Boston are well posted up in improved implements, the new methods of cultivation, and in the progress of rotation and change of crops. By the middle of June you can determine almost to a certainty what the hay crop will be. If it is destined to be light, then corn and millet make up the deficiency, and the root crops will insure a surplus. Not so here; what hay can be cut and stored, must carry the stock through; sometimes there is plenty and to spare, at other times, the stock suffers for the want of fodder that might be secured with a little forethought and labor. An acre or two of green corn used for soiling would be a great benefit. Then there is millet, which is strictly a summer grain, thought to be as valuable as any other fodder for winter use. By the way, will not some of your correspondents relate their experience in millet raising?

Now a word of advice to my neighbors and townsmen here in Meredith. Let every farmer and mechanic in this town give his name and money to the postmaster to order and pay for the *New England Farmer* for one year, and study the improved husbandry of the nineteenth century; then practice the same, and I will venture the assertion that they will find seventy-five per cent. increase of profits.

The soil of this town is good, and though some parts of it are hard to work, yet this can be met and overcome, by study, toil and perseverance. The manure heap can be increased at least four-fold, the land can be plowed with half the team, the expense of cultivating crops can be much reduced, and instead of bringing so much breadstuff into the town, there may be at least a sufficiency raised for home consumption. There needs a change in many particulars, but a few of which can now be noticed. There is a mistake somewhere in respect to there being so few laborers on the land. Is it because farming is not honorable or profitable? Or is the labor more severe than to drive a truck, or express, or omnibus, in Boston? Is it thought more honorable to measure tape behind the counter, than to preside at a weekly meeting of a farmers' association, or to swing the scythe in a summer's day? Let agriculture take its proper place with the professions of the day, and it will not be thought degrading to be seen in the field with spade in hand.

Ask the retired merchant what he thinks, while busy on his model farm, surrounded with everything to charm his eye, the lowing herds, the waving grain, the well-filled purse. Ask the man of small meads and few acres, with health and a smiling family, who makes the two ends of the year meet; ask him if he would exchange his happy, peaceful fireside, the lovely village church, and the district school, for the turbulent waters of a trading life in the crowded city, where boys are brought up amidst crime and dishonesty, which, without a mighty moral effort, will certainly destroy them.

Again, the farming community ought to be a reading and writing community. There should be books and papers of an agricultural character on every farmer's table and a day-book beside them to note down every little incident worthy to be remembered. These little scraps can be gathered up at any time, sufficient to note down a column to spread before the readers of an agricultural paper. These ideas and experiences can be matured and practised by others, and we be mutual helps, while we enjoy the luxuries of life in all their purity, and find that it is good to give as well as to receive.

These thoughts suggest themselves to me while here as a resident. Stranger.

Meredith Centre, N. H., 1855.

OFFICERS OF SOCIETIES.

Franklin County Agricultural Society.

H. W. Cushman, Bernardston, President.
Edward F. Raymond, Secretary.

Housatonic Agricultural Society.

Henry Smith, of Lee, President.
E. P. Woodworth, Gt. Barrington, Treasurer.
J. Sedgwick, Great Barrington, Secretary.

Rutland County Agricultural Society.

Henry W. Lester, Rutland, President.
John L. Marsh, Clarendon, } Vice
Alanson Allen, Fairhaven, } Presidents.
Daniel Kimball, Rutland, Secretary.
Zenin Howe, Castleton, Treasurer.

Cure for Garget.—*Joseph Merriam*, of Ohio, states, in the *Ohio Farmer*, that raw linseed oil, rubbed over the cow's bag, will cure the garget. He says it is a certain remedy.

MOWING EXHIBITION.

There was a trial of mowing machines, on Tuesday, on the farm of Mr. Moses Wetherbee, in Dedham, under the superintendence of a committee of the Norfolk County Agricultural Society. The trial was in competition for the premium of $600 offered by the State Society. We find a report of the proceedings in the *Telegraph*, from which we condense the following account:

"The field was very level generally, and free from any obstructions whatever in the nature of stones or stumps, though the surface was not entirely even. The grass to be cut was very light, but very even, being almost wholly a fine red-top of a wiry, hard kind, with a fine bottom.

"Three machines were on the ground, of Ketchum's patent, two of them being heavy for two horses, cutting a swath about 4 feet 8 inches wide, and one for a single horse. These machines operate with a vibratory motion, the cutting apparatus being fixed upon a rod which is moved swiftly from right to left.

"There are also three machines on the ground of Manny's patent, made by Adriance & Co., of Worcester. One of these also was for a single horse. The larger machines weighed about 500 and 600 pounds respectively. They also cut with a vibratory motion in the same manner as those of Ketchum's; but they have what Ketchum's do not, a small wheel on the right hand side of the machine, which helps to support it and causes it to move with less friction, and consequently greater ease for the team. They also have a reel which is made to revolve with a downward and backward motion as the machine moves forward, thus pressing the grass more firmly downward toward the knives.

Mr. Fisk Russell, of South Boston, also introduced three machines of similar sizes, but cutting on different principles, the knives being so arranged that each blade turns upon a pivot, as the rod to which they are attached moves backward and forward, and thus the edges of each blade cut with a drawing motion. The larger machines of Ketchum and Manny cut four feet and eight inches in width.

"There was also one of R. L. Allen's machines, of New York, of a different kind from either of the others in some respects, though the cutting blades move like those of Ketchum and Manny.

"The amount of land assigned to each team was half an acre. Six two-horse teams entered on the first trial at fifteen minutes after eleven. The work was completed in from twenty-two to twenty-five minutes, and was well done by all, though there seemed at this trial to be a general impression in favor of Manny's machine, on account of the greater apparent ease with which the work was done.

"The second mode of trial was by allowing each competitor to cut a single swath through the field and back again, and then examining the ground after the hay was removed by a horse-rake. In this trial, the machine of Manny showed a closer cut swath, and evidently was considered by the spectators generally, as the best machine.

"The next test was that of the machines drawn by a single horse, but no new light was thrown upon the qualities of the machines by this trial, except that it appeared that Manny's machine would admit of cutting either a full swath or only a partial one without clogging, while others did not seem to admit of that variation.

"One or two other trials, slightly varying from the last, were then had, and at the close the general opinion, as expressed by the witnesses, was rather in favor of Manny's machines, on the ground that, while they do the work quite as well, in every respect, as any other machines, they seem to be more easily managed and to require less power."

For the New England Farmer.

HARD TIMES AND THE PRICE OF LABOR.

Mr. Editor:—In speaking of "hard times," in a previous number, you say, "it is not the merchant who fails, or the manufacturer who stops his machinery, that suffers from hunger, cold or nakedness. But there *is* a class who have, until recently, received liberal compensation, who rise in the morning not knowing when or how they shall find food for the day." I would inquire of this class if the fault is not their own? If they have received liberal pay, (as it is known that workmen have received, in many cases, double pay to what was paid for the same labor ten years ago,) if they should not have been able, through a long period of prosperity, to have laid up enough to carry them through a "hard time" of six or eight months without suffering? It seems to me that, by using some economy, they should have been able to do so. The farmer has paid to the foreigner almost double for labor the past year, that they formerly paid to good men from New Hampshire and Vermont. I think the increased wages paid by farmers is unreasonable. The mechanic had, as a reason for the increase of wages, the high cost of provisions, and by increase of pay, was enabled to save more than formerly, when provisions were not so high. But the laborers on a farm have no board to pay or provisions to buy, as this item comes out of the employer; so that the farmer has been obliged to pay extra *wages*, and the extra expense of board, which has made the wages paid by the farmer amount to about $34 per month, or $20 per month with board, while the laborers in manufacturing establishments have received but $26 per month, or $1 per day without board.

I think the wages paid by farmers the last year too high, as the farmer cannot afford to pay more than manufacturing companies. Neither is it worth more to work on a farm than it is to work on wharves or for manufacturing companies, without the certainty of more than a week's work at a time; $14 or $15 and board, is as much as the laborer can command at any other work, and the farmer, who wishes to make as much as the laborer, should not pay more than this sum. E. G. L.

Lexington, *June* 23, 1855.

Remarks.—There are, no doubt, hundreds of cases of suffering where dissipation or imprudence have been the cause, and other hundreds where honest toil and rigid economy have not received their due reward. Let each examine and judge for himself, and give liberally from his abundance; or, what is better, supply employment and allow each to earn his own bread. But let none suffer.

Fig Trees in the Southern States.—The *National Intelligencer* says that choice varieties of the fig have been imported from the south of France, under the auspices of the agricultural department of the patent office. They are intended for distribution in our southern and southwestern States, where it is known that they will grow and thrive.

PATENT STUMP PULLER.

Among the visits made by us during the present month to the homes of the farmers in various parts of this State, and New Hampshire, was one to the town of Orange, Mass., to witness the operations of the eighth wonder of the world, the *Patent Stump Puller*, owned and operated by Mr. W. W. Willis, of that town. Notice of the trial had been given, so that persons assembled from the adjoining towns, and a few had come from remote distances.

At ten o'clock the hook of a stout chain was placed under the root of a moderately-sized stump, and it was turned out with as much apparent ease as though it had been a mere log with no attachments to the ground. Other stumps of still larger size, and more extensive roots, were then taken out, and all with certainty, and without the slightest confusion, and the time occupied in removing each one after the chain was applied, not exceeding ten minutes!

At length, the visitors having multiplied to quite a crowd, a larger chain was attached, and an enormous stump, the growth, perhaps, of centuries, was selected. With a small, half-circular spade, room was made under one of the roots and a stout hook attached; the chain passing from the hook up over the end of the shears. The whole surface of the ground about the stump was covered with the stumps of a later growth of young pines, whose roots penetrated the soil, and mingled with those of their ancient progenitor. The stump itself was between two or three feet in diameter, and sound, as were its roots.

A pair of stout oxen were then hitched to the lever, and driven forward. When they had advanced some four rods, the chain was taken up, and they were turned back without any unhitching, the roots in the meantime cracking and making a noise like a pistol exploded under water. The ground gradually rose about the stump, and in five minutes its gnarly roots which had securely laid there for ages were brought to the light! At the expiration of *ten minutes* the old hero was fairly turned over, and the roots on the upper side pointing to the heavens! Upon actual measurement, we found the roots extending something more than 16 feet from each side of the stump.

A gentleman from Valparaiso, who accompanied us, and who is entrusted by the Chilian government with funds to purchase agricultural implements, after witnessing the exhibition, at once ordered three of the machines to be sent to his country.

The experiment was one of the most astonishing exhibitions of mechanical power that we have ever witnessed. The machine is exceedingly simple, and not liable to get out of repair.

A very pleasant and appropriate address was made to the multitude at the close of the exhibition by —— Field, Esq., of Athol. All present seemed pleased and instructed by the occasion.

Below we give a statement of the power of the machine, furnished by Mr. Willis.

Orange, June 7, 1855.

The power of the machine varies according to dimensions. Suppose a machine to have a lever 18 feet long, the anchor loop or fulcrum to be 14 feet from the end upon which the power is applied, the first purchase loop to be 6 inches from the fulcrum; this will give you 28 times the amount of power applied at the end of the lever. Suppose your team to draw 2 tons, you have an actual purchase on the stump of twice 28, or 56 tons, and more in the same proportion as you extend the lever.

Suppose, in combination with the lever, you rise shears 12 feet high, and the foot of the shears placed 2 feet from the stump; in this case, you have an amount of power 168 times greater than that applied at the end of the lever. Suppose your team to draw 2 tons, you have an actual purchase on the stump of 336 tons! Sufficient to hurl out well nigh any monster!

When the power of the shears has become exhausted, if you apply the chain and pulleys, you double the power of the lever, which gives 56 times the amount of power applied at the end of the lever. That is, suppose 2 tons purchase by the team, you obtain 112 tons; this is sufficient when the stump is once moved from its bed by the greater power, to perfect the work.

The shears should be placed near to the stump to get the greatest power, and they exert the greatest, when, rising, they reach exactly the perpendicular position. A large portion of all work may be done without their aid.

A strong horse will answer most purposes, though oxen are preferable. One man can work this machine slowly, but it requires two or three to work it rapidly. A little patience and practice will enable almost any one to work it in a short time. Yours very respectfully,

Wm. W. Willis.

Locusts.—It is said that in some parts of Illinois, particularly in the vicinity of Alton, the locusts, which have been quite numerous, are dying in great numbers. The ground beneath the forest trees is covered with their carcasses, and the hogs of the farmers are getting quite corpulent from the unwonted good living which is thus provided for them. The insect appears to have fulfilled its mission, its body has become large and hollow, and its strength exhausted, and in flying from one place to another, it at last tumbles to the ground, falls upon its back, and that is the last of Mr. Locust.

CELLAR FLOORS.

The cheapest, best and most durable cellar floor, which is also impervious to rats, may be made in the following manner: Supposing the cellar wall already laid, with a sufficient drain to the cellar; then dig a trench all around the wall on the inner side, a foot wide and deep, connecting with the cellar drain. In the centre of this trench make a drain by standing two stones, bracing against each other, at an angle of about 45 degrees. Then fill up the trench with small stones, to within two or three inches of the top; cover these stones with a layer of pine shavings, and then with the earth thrown out of the trench, levelling off the same with the floor of the cellar. If the ground of the cellar should be gravel, nothing further will be required; but if clay, make it perfectly smooth, and strew over it a coating of clean gravel; one load of thirty bushels will be ample for a cellar of twelve hundred square feet. The cost of such a floor, estimating the gravel at a dollar, will not exceed eight dollars; the cellar will be rat proof, and the floor smooth-dry and hard. This is theory verified by experience. AGRICULTOR.

Hancock County, June 4.

P. S. I have been planting about a quarter of an acre with alternate rows of potatoes and sweet corn, 2½ feet apart, distance between hills 3½ feet, with a hill of peas between each hill of corn and potatoes. The potatoes were started on a bed of horse manure, and when from 4 to 6 inches high, were set out in the hills, receiving at the time what was equivalent to a heavy hoeing on the 26th ult. They will be ready for market by the middle of next month, and the rows occupied by them will be set out with Early York Cabbages and Ruta Baga Turnips. The peas between the corn will be off about the same time, leaving the corn standing at 5 feet distance one way and 3½ the other. The corn is intended for table use, and when the ears are gathered, will be cut up and used for green fodder. The result shall be communicated *if* favorable, which is not doubted.

This is economy, and of the right kind—practical economy. By a little calculation of this sort, farmers and gardeners might make old mother earth yield double for the support of her children which she now does.—*Rural Intelligencer.*

MEANNESS DOES NOT PAY.

There is no greater mistake that a business man makes than to be mean in his business. Always taking the half cent for the dollars he has made and is making. Such a policy is very much like the farmer's, who sows three pecks of seed when he ought to have sown five, and as a recompense for the leanness of his soul, only gets ten when he ought to have got fifteen bushels of grain. Everybody has heard of the proverb of "penny wise and pound foolish." A liberal expenditure in the way of business is always sure to be a capital investment. There are people in the world who are short-sighted enough to believe that their interest can be best promoted by grasping and clinging to all they can get, and never letting a cent slip through their fingers. As a general thing, it will be found, other things being equal, that he who is the most liberal is most successful in business. Of course we do not mean it to be inferred that a man should be prodigal in his expenditure; but that he should show to his customers, if he is a trader, or those whom he may be doing any kind of business with, that, in all his transactions, as well as social relations, he acknowledges the everlasting fact that there can be no permanent prosperity or good feeling in a community where benefits are not reciprocal.—*Hunt's Merchant's Magazine.*

HORSES AND RATS IN PARIS.

A correspondent of the *N. Y. Spirit of the Times* gives an interesting account of the manner in which the bodies of Parisian horses and rats are usually disposed of. He says:

Four hundred horses die or are killed in Paris in one week. There is a common pound, surrounded by a stone wall, covering some ten acres. According to some municipal regulations (there is an 'ordonnance' for every thing in France) all dead carcasses, except human bones, must be brought to this general receptacle. The carcass of a horse is valuable for the bone, the hide, and the hair, to say nothing of the flesh, much prized, when fresh, in certain sausage manufactories. But should you wait until the horse has actually shuffled off his hairy coil, you might miss a bargain—another of the trade precedes and purchases. Hence it is important to buy the horse, as a dead horse, before he is dead. It is a regular business in Paris. You can tell these agents for the purchase of dead horses at a glance; the dress is that of an English groom, save the vignette on the visor of the cap, representing a dead horse's head and cross-bones; a memorandum book, a pencil, a stamp, and a piece of caustic complete his accoutrements. With scrutinizing eye he travels the thoroughfares of Paris; should a horse go lame, break a leg or neck, should he show symptoms of distress—in a word, anywhere or in any way evince signs of the many ills to which horseflesh is heir, immediately is an offer made for the animal, deliverable when really dead. The bargain concluded, the 'signalement' of the horse and owner is carefully recorded, and a private mark stamped on the inside of the foreleg with the caustic; the horse goes, perhaps rejoicing, on his way for weeks, perhaps months, only to be met with and identified after death, at the public graveyard for horses. Now, except in cases of fresh specimens, as mentioned above, the first operation on a dead horse is to take off the skin; then the flesh, to get at the bones. The skinning portion is easy, and performed with a dexterity and rapidity truly astonishing.

I have seen in the enclosure spoken of, at one time, over one hundred horses skinned, or being put through that process. The next point is to divest the bones of adhesive and often putrid flesh; bones are valued in proportion as they are clear, neat, and free from other matter. To take off the flesh by hand, is a tedious and difficult operation. An ingenious Frenchman solved the difficulty. He noticed that rats were very fond of horse flesh; he advised the authorities to colonize the dead horse pound with these animals; the catacombs of Paris furnished them by thousands. It was done, and now-a-days a dead horse's carcass, put in over night, is literally nothing but a neat and beautiful skeleton in the morning. The pecuniary saving to bone dealers from the voracity and gnawing propensities of the rat family, is, I was told, very considerable.

Our Yankee Frenchman did not, however, stop there. It was natural to suppose that rats, so well fed and provided for, would rapidly increase and multiply; hence the necessity of regulating the matter. Every three months a grand 'battue' is made upon the aforesaid colony of rats, and all caught above ground die the death of rats. The manner of doing this amused me. Horizontal and cylindrical holes are bored all around, in and at the foot of the enclosing walls—the depth and diameter being respectively the length and thickness of the rat's body. Upon the morning of the 'battue,' men armed with tin pans, kettles, drums, &c., rush in at the peep of day and 'charivari' the poor rats, who, frightened to death, poke their heads into the first opening. Of course, all those in the wall holes have tails sticking out. The rat collector, with bag over his left shoulder, now makes a tour of the premises, and the scientific and rapid manner with which the rats are seized by the tail and safely (to both rats and operator) transferred to the bag, challenges admiration. It even surpasses the 'Chiffonnier's' rag picking. Perhaps you wish to know what becomes of the rats. These, also, are sold before they are caught or killed. The privilege of gathering rats on the 'battue' days is farmed out by the authorities, and a profitable business it is. These rats, sleek and fat as they necessarily are, fetch a highly remunerative price—the fur, the skin, and the flesh, meet with ready sales.

For the New England Farmer.

"LUNAR INFLUENCES."

I noticed in the *Farmer*, for February 17, a short article headed "Lunar Influences." The signed initials are those of one whom I know, by reputation, to be a judicious and practical man; and I was very sorry to see him express himself in the language of ridicule, dashed with bitterness, as having no fellowship with the *superstitious* believers in lunar influence.

The moon may have nothing to do with the cutting and killing of brush; but, *somehow or other*, it *will kill* brush to cut them in the old of the moon in August. I speak from experience, having first discovered the fact by accident, after cutting the brush on the same land for two or three years without any effect, unless it were to make them "renew their youth like the eagles." The moon may have no influence upon vines; but, *for some reason or other*, vines planted in the old of the moon *will be more fruitful* than those planted in the new, as "J. W. P." can very easily ascertain by experiment. Plant them so that the pollen will not mix, and try it.

I remember reading the lectures of one Dr. Lardner, a very learned and scientific man, who run away with another man's wife, and laid down science to Uncle Sam's boys several years ago. He ridiculed the *superstitious traditions* of farmers and the "common people" concerning the influence of the moon on vegetation. The same Dr. Lardner ascribed the cause of the tides to the attraction of the sun and *moon*, principally of the moon, on account of her comparative nearness to the earth. The moon, then, Oh, Dr. Lardner!—or your shade, if you be dead—*does have* an influence on the *water!* So it has on certain kinds of vegetation; the sun-light has an influence; the *moon*-light has also an influence. For what, I would respectfully ask of the *savans*, was the moon made? To shine, say a fourth part of the nights of the year, and "keep dark" the balance? Can "J. W. P." sleep as well on a moonlight night as on a dark one? It is not the light in his room that causes him to be wakeful, altogether; for he could sleep facing a lighted lamp—"cat-naps" at first, perhaps, if not accustomed to the artificial light; but let the full moon beam into his face, and he will lie awake for hours reviewing the sins of his past life.

Mr. Editor, on the whole, "J. W. P." did not write that article; if he did, let me ask of him respectfully to take up an old-fashioned book, called the "Holy Bible," and turn to the 33d chapter of Deuteronomy, read the 14th verse, and let reflection have its "perfect work."

J. D. Canning.

BOOK WORMS AND DUNCES.

The difference between those who spend a lifetime in the perusal of antiquated works on agriculture, and those who never read at all, is much less than is generally supposed; and while a thorough reading of the current practical improvements of the day is highly useful, the application of an antiquarian taste in the study of agriculture is worse than useless. What can it avail to a modern farmer, to know what were the processes of a thousand years ago? What consequence can it be to him to know what crops could be raised by the use of a wooden plow, or what was the opinion of Jethro Tull on matters which have been materially improved and better understood since his time? Many of our agricultural works are half filled with the history of agriculture, with scarcely a pertinent word in relation to the minutia of present processes. They remind us of a work which has enjoyed some popularity, entitled "Hydraulics," from which no artizan can learn how to build a pump. It is merely a revamping of Vitruveus and other writers, describing the modes of raising water by the Ancients. An Examiner in the Patent Office might study the history of agricultural tools with profit, for it would enable him to know what was strictly new, but a farmer should study to know the best and most recent improvements of the day. He need not fear that any tools preceding those now in extended use, are superior, for had they been so, they would have remained in use. No set of artizans are so jealous of their old tools as farmers. Any new invention must be clearly proved to be superior to those which preceded it, before it can find its way into the tool house of most farmers. The continued repetition and recital of agricultural processes of the ancients, although the fashion of the day, is like the refusal of our colleges to grant their honors to those who can substitute a knowledge of two of the modern languages in place of one of the dead ones. Progression is the order of the day, as well as the first law of nature, and farmers, beyond all others, should be the first to remember and obey this law.—*Working Farmer.*

DOCKING HORSES.

We are glad to see that the abominable practice of docking and nicking horses is going out of fashion. It prevails in no country in the world besides England and the United States; we got it from the mother country, and the sooner we leave it off the better. It is wonderful how any body but an ignorant, narrow-minded blockhead of a jockey should ever have thought of it—being as offensive to good taste as it is a violation of every human feeling. Has nature done her work in such a bungling manner, in forming that paragon of animals, the horse, that he requires to have a large piece of bone chopped off with an axe to reduce him to symmetry? or that beauty and grace can be obtained only by cutting a pair of his large muscles.

"The docking and nicking of horses," says an intelligent writer on Farriery, "is a cruel practice, and ought to be abandoned by the whole race of mankind. Every human being, possessed of a feeling heart and magnanimous mind, must confess that both the docking and nicking of horses is cruel; but that creature, called man, attempts thus to mend the works of his Creator, in doing which he often spoils and disfigures them. What is more beautiful than a fine horse with an elegant long tail and flowing mane, waving in the sports of the wind, and exhibiting itself in a perfect state of nature? Besides, our Creator has given them to the horse for defence as well as beauty."

The same author relates an instance of a fine hunting horse owned by an Englishman, which would carry his rider over the highest five barred gate with ease; but he thought the horse *did not carry as good tail* as he wished; he therefore had him nicked, and when the horse got well, he could scarcely carry him over two bars. "Thus," said he, "I have spoiled a fine horse; and no wonder, for it weakened him in his loins." Any man of common sense would cheerfully give ten per cent. more for a fine horse whose tail had never been mutilated, than for one which had been under the hands of a jockey.—*Maine Farmer.*

PRUNING WHEN THE LEAVES ARE ON.

The only pruning we hold to be sound, safe and commendable, at this season, is that of the *finger and thumb*,—in other words, *pinching*. It is quite inconsistent with good management to rear a crop of good shoots at two or three inches growth before they attain to woodliness. This economizes the force of the tree, and turns it into a channel where it will promote instead of frustrating the ends we are aiming at. For instance, if we plant a young tree, and have it trimmed with a view to a certain form, and, contrary to our expectations, a shoot breaks out at an unexpected point, and assumes a vigorous habit, and robs all other parts, it would be evidently unwise to tolerate this intruder until it arrives at full growth and then cut it away. Too many trees are thus managed by the neglect of summer pruning or pinching. We admit, however, that there are cases in which the summer pruning, or entire lopping off or cutting of limbs of considerable size may be judicious and safe. For instance, in the case of neglected orchard trees, in a luxuriant state, with dense heads, in which the fruit is deprived of air and light. In such cases, the branches may be thinned out and cut; the surface heals even more rapidly and smoothly than at any other time. But it is unsafe to produce any very sensible diminution of foliage, as it arrests the growth of the tree.

All pruning in the growing season tends to arrest growth. Nurserymen know that a slight pruning of stocks before budding will so arrest growth as to make the bark adhere firmly; when, before the pruning, it lifted freely. It is only on this principle that most all pruning, to promote fruitfulness, must be done at a point of greater or less activity of growth. Late spring pruning is often resorted to as a means of subduing a superabundant vigor, and it has the same effect as root pruning to a certain extent.—*Horticulturist.*

For the New England Farmer.

PIGS AND POULTRY.

Mr. Editor:—The following account, which I have kept for my own satisfaction, I had not thought of making public till recently, upon being advised by a friend; it is not as particular as I should have kept it if designed for the public.

The 26th of July, 1853, I commenced my account with 10 pigs, 6 weeks old, for which I charged $3.50, or	$35.00
The mother	12.00
From that time up to the 26th Feb., 1855, I have given them 56 bags corn, 192 bushels cob corn, 43 bushels barley, 4 bushels oats, 1536 pounds shorts, and 255 pounds rice, making an aggregate cost, including toll, of	281.20
Pigs, mother and all	$328.20

In the spring of 1854, I had 6 pigs from the mother, being her second litter, and 6 pigs from one of the 10 above named. I will now give you an account of what I have received in return for all this outlay, first informing you that I kept my poultry out of the grain charged to the pigs, and also, what grain my horse has had has been taken from that, as it was not convenient to keep separate lots.

In the spring of 1854, I killed 918 lbs. pork	$100.98
I sold 3 pigs for	9.75
I killed 4 pigs July 3d for roasting, 76 lbs., 14c	10.64
During the last fall and winter killed 1700 lbs	187.00
Have on hand one of the 10 I began with—one I lost	12.00
Grain for horse during the time	10.00
	$330.37
Add to this for poultry sold during same time	26.72
Eggs do. do	55.99
	$412.08

Leaving me $84 for about 250 bushels carrots I have given them. The manure, I think, will pay for the trouble of tending them. I have reckoned the pork at 11 cents per pound, as it has averaged me that by cutting it up and selling it in the form of ham, sausages and salt pork. I could not have saved the expense had I sold them whole, at from 7 to 8 cents per pound, the market price.

It is my opinion, formed from this experience, that if farmers will save their own corn, it will pay well to raise hogs to fat. It is also my opinion that cob corn is the cheapest and best food for hogs, till within a week or two of killing.

I have but little faith in the good run of shorts or rice meal for keeping swine.

In this town its inhabitants, almost to an individual, are engaged in agriculture, yet not half of the corn consumed is raised here. Exactly the reverse of this ought to be the case, and might be, with an effort; and the difference would be perceived in the purses of our worthy farmers, as well as in the sight of waving fields of golden grain and granaries filled with corn.

Respectfully yours, S. Woods.

Ashby, March 28, 1855.

For the New England Farmer.

BOOK KNOWLEDGE.

For a thinking, earnest man, who is sincerely desirous of the increase of knowledge and of improvement in all the arts of life, and especially in agriculture, the most important of all arts, it is exceedingly annoying to hear men, and even intelligent men, who of course ought to know better, deriding book-farming, and agricultural science, as wholly unsafe, and unworthy the attention of practical men. There are some such, among good practical farmers, men who are successful in all farm operations, and who are indebted, much more than they are aware, to the labors of science, who are constantly affirming that the knowledge derived from books is of no value to the farmer. I have such a man for a neighbor, who is eminently successful in his own business, and who is always able and willing to communicate valuable and reliable information with regard to his own farm operations. He is inquisitive, and often meets the most intelligent and enlightened cultivators in the State, and carefully treasures up the information he obtains from intercourse with them. I have derived much useful information from him, and he is ready to impart to all his neighbors, the results of his own experience, but he denounces books, as wholly unworthy of confidence, and quite as likely to teach error as truth. When I receive some important information from this man—or some useful hint, if I do not commit it to paper, but keep it locked up in the recesses of my own breast, its benefit remains with me alone. But if I commit it to the press, it will be carried on the wings of the wind, through the length and breadth of the land, and benefit thousands. Perhaps it is the result of much thought, and labor, and careful experiment, and why should not others enjoy the benefit of it, as well as myself. What danger is there in sending it forth to the world? who can be injured by it? Why should he "hide his light under a bushel," or why should I hesitate to "hold forth" the light which I have received? But if this information is put into type, and fixed upon paper, it becomes book knowledge, and if I were to read it to my neighbor, he would give me a lecture upon the folly of relying upon information derived from books. He is like Omar, who said of the books of the Alexandrian Library: "If they contain only what is in the Koran, they are not needed. If they contain what is not in the Koran, it must be false. Let them be burned." So if books teach only what he knows, they are of no value. If they teach what he does not know, they are not to be trusted. R.

For the New England Farmer.

CHANGE OF SEED.

Mr. Editor:—In an article copied from the *Visitor* into the *Farmer* of last week, the doctrine is laid down with much decision that "the seed of potatoes ought to be changed every five or six years. Even if the seed is brought but two or three miles, the crop will be much better."

There is a class of people, and verily I am one of them, who cannot believe any theory or dogma, however venerable it may be by reason of its age, without some reason that shall seem good and substantial. Now, if there is any good reason for the above-quoted opinion, I should really like to know what it is. I have heard it advanced many a time before, not only in reference to potatoes, but to all the cultivated crops. But what is the philosophy of it? What principle of vegetable physiology makes the change necessary or advantageous? If I plant potatoes this year in the "hop-field," next year in the "rocky lot," and the next year in the "big-oak lot," why, if any change is necessary, is it not just as well as to go to my neighbors, one, three, six, or a hundred miles off for my seed? Will some one tell us?

Allow me to give a little of my own brief experience with the carrot. Some seven or eight years ago, I commenced the business of raising garden seeds. I obtained my orange carrot seed of a neighbor, who has always been in the same business. My first crop was, perhaps, as good as that of my neighbors. There were carrots of every shade of color, from the deepest orange to the purest white. I selected a few of the longest and straightest roots, and those of the darkest color, from which to raise seed for my own sowing. This course I have ever since followed, and have never "changed" my seed. Now for the result so far. Two years ago, as I was harvesting my carrots, a neighbor, who is also in the seed business, and a believer in the necessity of frequently "changing seed" for all vegetables, happened to see some heaps of the roots *from which I had selected such as were thought suitable to set for seed;* and he was so pleased with them, not knowing they were the *rejected* roots, that he at once asked for some of my seed for his own sowing, as his had "run out." Last fall another neighbor, on seeing my crop, wished to renew his seed also, and he was the one from whom I originally obtained my seed. And this result has been obtained with no special advantage from extra manuring or deep plowing; my plowing has all been done by a single horse.

This has been my short experience with a single vegetable. Have not many other persons had a similar experience with other plants, to the improvement of which they have devoted some attention? Yours truly, J. Doolittle.

Elm Lodge, Concord, May 1, 1855.

Remarks.—The above is not only from a *practical* farmer, but one of the most careful observers among us. Knowing his soil, we think it best to state that much of it is a sandy loam, and as easily plowed, probably, with one horse, as most of our lands are with two, or a pair of oxen.

For the New England Farmer.

OF THE PRACTICAL VALUE OF ANALYSIS OF SOIL.

BY HENRY F. FRENCH.

In a former number, some remarks were made by me tending to show the danger of relying entirely on theory, in determing the value of manures, because the same substances, so far as chemical investigation can discover, are known to produce very different effects as fertilizers, as well as to differ entirely in appearance and form.

I will now re-publish part of an article furnished by myself to the *Country Gentleman*, in continuation of the same general subject, which is so interesting to all reflecting tillers of the soil. The chemist may do much for the farmer, who is already indebted to chemistry, for the greatest improvements in agriculture, which have been made in the last century. But there is a Power beyond and above the reach of science, "that doeth all things well," and "whose ways are past finding out," and it is important always to have clearly in mind, the point where human knowledge stops, and where man must behold, and yet not comprehend the workings of the Infinite. The whole matter of the re-production by plants of their like from the seed is as much a mystery to the philosopher as to the child, and we ask the reader of the suggestions below, to reflect long enough upon the subject of them, to habitually ask himself, as he watches the springing of his grain, and the blossoming of his trees, the thrilling question, What is life?

Besides the operations which plants are constantly undergoing, and which we refer to *chemical* laws, there are other phenomena of vegetation, which are by no means so well understood. We have seen that the chemist can detect not only the various substances of which grain, as *wheat*, for example, is composed, but can tell us the precise proportions in which these elements are found to exist in it. And, moreover, every one of these elements he can find in his laboratory, and he can combine them in the exact proportions, in which they exist in the wheat. Then the question occurs, why, with this knowledge, and the materials at hand, *why can he not make wheat?* Yet the most skilful chemist that has ever spent a life-time in the laboratory, has never presumed to pretend that all his science could enable him to form a single grain.

Chemical action is doubtless going on in all animals and plants, living as well as dead, but chemistry by no means solves the mysteries of vegetable growth. In growing plants, the chemical forces are subordinated to an invisible, intangible, all-controlling essence; they are under the guardianship of a power higher than they, which modifies all it pervades, and this power is the *Life Principle*, or *Vital Force*.

If we contemplate the turf at our feet, in spring time, we observe not the uniform results which chemical causes should produce, but we see, springing from the same earth, nourished by the same soil, watered by the same rain and dew, breathed on by the same air of heaven, plants of different form and size and qualities—the rose, the lily, the crocus and the violet, flowers of different colors and fragrance.

Whence arises this diversity? Why are not plants thus subjected to the same influences, exactly alike in their structure and qualities?

To these questions, the *Chemist* can return no answer, through his science. We can only say, that in every little seed which we deposit in the ground, there is a principle of identity with its kind,—a *soul* as it were, which commands the elements of the earth, and air and water, and directs their curious arrangement into leaf, and stalk, and flower, and fruit, suited to the body in which it shall manifest its earthly being, thus ordering, in spite of man's feeble efforts to modify its growth, whether it shall spring up the hyssop on the wall, or the cedar of Lebanon.

Human knowledge can make no approximation to a comprehension of this Principle of Life. We take from apples of the same tree their several seeds, and plant them side by side. They spring up, and become fruitful trees, each producing a fruit of different color, and size and taste. The chemist could have analyzed these seeds, and shown us their exact constituent elements; but think you the power of any human science could, from any investigation, have detected a difference, which should have indicated, or which can at all explain the diversity of the fruit?

Through the controlling influence of this Vital Power, new substances are consequently formed in plants and animals, which human art can never imitate, such as wood, and sugar and starch in plants, and fat and flesh in animals. In the egg of a bird, the chemist, indeed, may detect the same substances which may be found in the living creature produced from it, but analysis fails utterly to show him why, by the application of (artificial) heat, these substances should assume the form of flesh and bone and feathers, and finally of a breathing, living animal.

You have heard of the good woman, who called at the eccalaobian in New York, where she had heard they made chickens in some way without the help of hens. She asked to be shown the process. An attendant took her to the room where the heat was applied to the eggs, and began to explain the operation. But the good lady was not fully satisfied. "Make chickens out of eggs," cried she indignantly, "who could not make chickens out of eggs; I thought you had found a new way of making chickens!"

When life ceases, either in plant or animals, the known chemical laws resume their sway, and soon reduce the lifeless mass to substances of known qualities, again to rise into new life in other forms.

Of the operation of these laws, enough is known to render them, in practice, highly useful to the cultivator of the soil. Indeed the study of Agricultural Chemistry is one of progress for a life-time, one which from its nature, must perhaps always remain inexhaustible.

But the question will occur, must the farmer, the gardener, the lady who rears a few flowers, in order to cultivate intelligently, be familiar with all the abstruse mysteries of this science?

This is by no means essential, but every cultivator should at least know enough to guard against imposition and fraud, by the dealers in patent manures, and new theories of cultivation.

Every educated person, of either sex, should know enough of chemistry, to understand the language of books and papers and the conversation of intelligent men upon this subject most interesting to all, for it certainly is not respectable, to be ignorant of the common principles of a science which engages the attention of so many distinguished minds. And it may be added, as to those whose business it is to cultivate the soil, the more extensive their knowledge of the *principles* of husbandry, the greater will be their interest in their business, and the sooner will it be raised from a position of mere physical toil, to that of a rational and noble science.

MOTH AND BEETLE HUNTING.

With the first swelling of the buds upon your fruit trees, these enemies of your garden pets make their appearance, to follow up their work of destruction, until the frosts of Autumn cut off the leaves and end their labors. The practised fruit-grower is already upon their track. Here among the dwarf pears you can reach them with thumb and finger, and crush a world of insect life in a single moth. There is in the last half of April, and early May, a beetle of blackish color, with a square upon his back at the insertion of his wings, made up of four little squares, two of jet, and two of dull yellow, that calls for your attention. You will find her at the end of the blossom buds, doubtless laying her vampire brood among the young fruit. She is about five-eighths of an inch long, and will fall to the ground or fly off unless you approach her cautiously. Take a turn among all your young trees every morning, and see that they are cleared of these depredators. Occasionally you will find a cluster of eggs glued to a limb that you overlooked in the fall. See that they are removed and burned. Do not think that the young dwarf pear, set out last fall, will take care of themselves. The moths and beetle have a lien upon them, and if you do not improve the property you invested in them, the natural proprietors will resume their inheritance, and save you the trouble. Follow up your attacks upon these insects with vigor, remembering that every moth mother slain is a colony of insects exterminated.

Soon the large tribe of the *Melolonthians* will make their appearance, and they may be caught in great multitudes. The May beetles can be exterminated by shaking them from the trees they infest upon a cloth, either at evening or early in the morning, while the dew is on, when they do not fly much. Empty your cloth into the fire.

Another method of destroying these insects in the winged state is by drowning. This is best adapted to those whose habits are nocturnal. We place a half hogshead, or large open vessel in the fruit garden, half full of water. Place a narrow strip of board across the top, and at night put a lighted lanthorn upon it. The insects will be attracted by the light, and in attempting to alight, "blind as a beetle," they will meet a watery grave.

Another good trap for them is glass bottles partly filed with sweetened vinegar and water, and hung up in the fruit trees. Multitudes will be tempted to their final undoing by these bottled sweets. These insects are legitimate game, and fruit-growers will find much more satisfaction in killing them than in shooting the birds, who are their fellow-helpers in moth hunting. W. C.
—*Am. Agriculturist.*

FATTING CATTLE.

In fatting animals, the less exercise permitted the better. Exercise is doubtless necessary to ensure the health of all animals; but we must recollect that fatting is, in itself, an abnormal condition, that all animals, rapidly accumulating fat, are more or less diseased. The celebrated breeder, Bakewell, understood this fact, and was in the habit of turning his sheep into marshy meadows for the purpose of getting them diseased. In such a condition they matured earlier and laid on fat with surprising rapidity.

Salt is good for all animals, and probably is, in some form or other, necessary to *health;* but we know that salt is not good for fatting animals, and should never be given if the object be the accumulation of fat. Experiment agrees with theory on this point. We recollect when conducting some extensive experiments on sheep, a practical friend urged us to give them salt, assuring us that his sheep did much better with than without salt. The sheep on which we were experimenting were doing well at the time, averaging about 2 lbs. increase each, per week. To please our friend, we gave the sheep salt, of which they partook freely, but in the fortnight during which they were allowed salt, every sheep lost weight. We would give them as much water as they would drink; if fed roots, they will require, and drink less.

In fatting animals, perhaps, the most important point is to obtain such as are well calculated, from breed, disposition, and symmetry, to mature early and fatten rapidly; then keep them warm, (be careful they are not too warm and that they do not prespire) quiet, and clean. Feed they regularly and let their food be highly nitrogenous, with sufficient available non-nitrogenous matter united with the required bulk.—*Ohio Farmer.*

Moral Effect of Certain Pursuits.—Mr. Pierpont, in one of his lectures, mentioned a fact in evidence of the moral advantages of the study of natural science, which is worthy of notice. He stated that although many poets and orators and men devoted exclusively to literary pursuits have been addicted to intemperance and other solitary habits, yet he could not recollect a solitary instance of a vicious, a dissipated or intemperate man of science. This statement may be too unqualified; but there can be no doubt of the general correctness of it. It is generally admitted by those who have written upon the habits of distinguished men, that those who teach morality are often ill-tempered and misanthropic, while those who devote their time and energies to the study of nature, are remarkable for a quiet, amiable and cheerful temper. The cause of this difference of temper may be that moralists are constantly finding something in the vices and prejudices of society to excite their indignation, and to cherish a misanthropic humor; while he who pursues the study of nature sees a beauty and harmony and consistency pervading all her works that breathe their cheering influence into his own soul.—*Country Journal.*

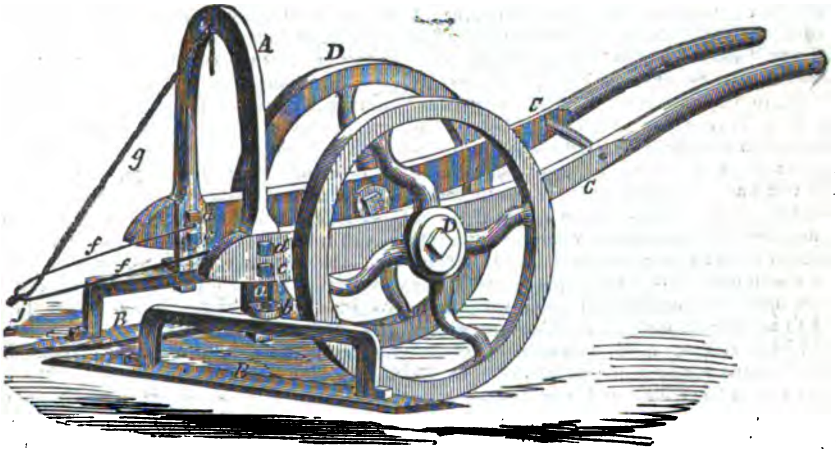
For the New England Farmer.

THE WEEPING WILLOW.

I presume that it is known to few that, for the weeping willows that hang their pensive boughs beautifully over the hallowed graves of the dead, England and America are indebted to the distinguished Lady Mary Montague. It is said that while at Constantinople, whose husband at that time occupied the embassy, she sent, in a basket of figs, home to her intimate friend, the poet Pope, a sprig of the Asiatic willow. He set it out in his garden, and from that twig has come all the weeping willows in England and America.

Lady Mary Montague was born about the year 1690, in Nottinghamshire, England; she was one of the finest and most accomplished scholars of her age; was cotemporary and on terms of intimacy with Hannah More, Addison, Pope, Steele, Bishop Burnet, &c.; was the wife of the accomplished Charles Montague for nearly fifty years; at the court of George I. for some four years; resided upwards of twenty years in Italy and its neighborhood; lived to the advanced age of seventy-three, and died August 21, 1762.

To Lady Mary, also, it is said, belongs the honor of introducing inoculation for the small pox, a practice which has annually saved many lives. R. H. Howard.



A NEW MACHINE FOR HOEING.

J. A. Robinson, of Fremont, N. H., is the patentee of a new machine for hoeing. This implement is of very recent date, having been patented on the 20th of February last. It embraces a principle of weeding entirely new in itself, and is designed for cultivating all vegetables planted in drills, or rows; it is particularly adapted to cultivating drill-sown *wheat*, and other small grains. It is conceded by farmers and gardeners, who have examined it, to be a very great improvement in cultivating the *root* crops.

The facility and accurateness with which this implement operates, in performing that most laborious and expensive part of cultivation—*weeding*, enables the farmer to cultivate his carrots, onions, &c., with one-third the usual expense of labor.

☞ The statement above we give in the words of the patentee himself. We have not worked the implement, and of course have no personal knowledge of its merits. A gentleman, however, who is a large farmer, and one who is thoroughly acquainted with similar implements, informs us that he has used it with much satisfaction—finding it to accomplish the work effectually, and with ease to the operator. He states that when intended for field use, it should be made somewhat heavier and stronger than one employed merely in the garden. Price $5, and for sale at the warehouse of Messrs. Ruggles, Nourse, Mason & Co.

Watch Manufactory.—Watches equal to the best imported, are manufactured in the suburban town of Waltham. The prices for which these are sold range from $20 to $200 each, at retail. A large building has been erected on the south side of Charles river, which is kept closed against intrusive eyes. The company is doing a large business.

For the New England Farmer.

THE BIRDS OF NEW ENGLAND.

Mr. Brown:—Dear Sir,—Will you be kind enough to inform me of the most approved authors upon the subject of American Ornithology, and where their works can be purchased. Many of your female readers have been interested in the articles published in the *Farmer*, on the "Birds of New England," written by Mr. S. P. Fowler, of Danvers, and perhaps that gentleman can give the desired information. Yours truly,

April 4, 1855. Laura.

REMARKS BY S. P. FOWLER.

In answer to the request of your fair correspondent I would say, there is, perhaps, no part of the natural history of our country better written or illustrated, than its ornithology. Many valuable and beautiful books have appeared upon this subject, and are to be found in some of our public libraries, and in the mansions of the wealthy; but it would be difficult to direct a person to a book-store where could be obtained a work descriptive of all our birds, at such a price as would come within the means of the general reader. A cheap edition of Alexander Wilson's "American Ornithology," with Charles Lucien Bonaparte's continuation, has never been published, to my knowledge, in this country. An edition appeared from a New York press in 1852, styled "Wilson's American Ornithology, with additions, including the birds described by Audubon, Bonaparte, Nuttall and Richardson." The purchaser of this book, upon seeing such an array of great names amongst ornithologists, running down its back, would be led to suppose that he had at last found a cheap edition of ornithology, describing the habits and other useful and interesting facts relating to all our birds; but in this supposition he would be mistaken. Still, this edition possesses value to many students in ornithology, in its full and excellent synopsis and copious notes by Sir William Jardine and its editor. It can be found in the book-stores of Boston and New York. No cheap edition of Audubon's splendid work has as yet appeared in this country.

Mr. Thomas Nuttall published in 1832 his "Manual of the Ornithology of the United States and of Canada," at Cambridge, in two volumes, containing many wood engravings. In his preface, Mr. Nuttall says, "it was my principal object to furnish a compendious and scientific treatise on the birds of the United States, at a price so reasonable as to permit it to find a place in the hands of general readers." It is known to many how well and truly he accomplished his purpose. The first volume contains the land birds, with an introduction of thirty pages, presenting the general subject of ornithology with great beauty and interest. The second volume gives us the water birds, with an appendix drawn from discoveries made by Richardson and Swainson. We are sorry to add in connection with this work, that this valuable "Manual of our Ornithogy" has become scarce; we can point to no book-store where it can be obtained. A few copies can only occasionally be found at Burnham's, in Cornhill.

In order to a full and better acquaintance with the natural productions of our commonwealth, a survey was ordered to be made by our Legislature in 1837. One portion of the work, allotted to a gentleman on the commission, was our ornithology. It was understood he was to enumerate the birds of Massachusetts, and to give such information respecting their habits, as would be particularly interesting to the cultivators of the soil to know. The report on our birds appeared in 1839, which, together with the other reports on our natural productions, was, by our Legislature, distributed by giving each member, and various literary institutions and societies, one copy each, limiting the distribution in its descent to the people, to incorporated societies and academies, and giving but one copy to every town in the commonwealth, however large it might be. The copies remaining not distributed were laid aside for future Legislative action. The new members of the next Legislature finding them on hand, and perhaps in their way, voted the balance of the edition into their own pockets, and that is the last we hear of it. Such has been the action of our Legislature in regard to many of its valuable printed reports, and we are sorry to admit, in years past, we have sometimes participated in it. But there is one consolation to our cultivators of the soil, in their never having seen, and scarcely knowing of the books prepared for them by the kind forethought of our old and respected commonwealth; it is, if they had the report of the ornithology of Massachusetts in their hands, they could not tell from any description in the work, or reference to any author, a Crow Blackbird from a Cow Bunting.

A valuable local history of the birds of Long Island was published in 1844, by J. P. Giraud, Jr. It is particularly full and satisfactory in its description of our water birds. The object of the work is best described by its author in his preface, where he says, "He has been induced to offer the present volume with a view of placing within the reach of the 'gunners' the means of becoming more thoroughly acquainted with the birds frequenting Long Island." So we presume the work would be more interesting to a rough-faced shooter of water-fowl, than it would be for "Laura."

In regard to the foreign editions of "Wilson's Ornithology," one was published in 1832, in three volumes, with colored figures, in London, with Sir William Jardine's notes. This edition contains Bonaparte's continuation. It is advertised for sale by Little & Brown, book-sellers in Boston, for $25. This is the cheapest edition of our ornithology, with colored plates, we are acquainted with. An edition of "Wilson's Ornithology" was published in 1831, in Edinburgh, by Constable & Co., in the Constable's Miscellany, and edited by Prof. Jameson, in four small volumes. They contain what was written by Wilson and Bonaparte, with their synonyms, also an appendix containing additional details by Audubon, Richardson and Swainson. This is a neat and satisfactory pocket edition, containing some four or five plates, very suitable for "Laura," or any other lady. But where it can be obtained I know not; the one I possess was ordered from London many years since.

In view of all that we have now written, it would seem that we have not at this time a cheap and complete work, embracing a full history with specific descriptions of all our birds. Such a book is wanted by the farmer and horticulturist to place in their library, for reading and reference, alongside of other works on the cultivation of the farm or the garden. "Laura" also, and other persons, who love to study the beautiful in nature, would like to own a perfect and comparatively cheap edition of American ornithology. Who will furnish such an edition?

S. P. Fowler.

Danvers-port, *June* 16, 1855.

A "WAKE"* AMONG STUMPS!

OR, THE "ORANGE STUMP PULLER" IN FITCHBURG.

Willis, with his machine, was on hand according to promise, and assailed the stumpy race with vigor and success. Many hundreds, perhaps thousands, during the day, were witnesses of his exploits. The power of the machine is great and astounding. With a single yoke of cattle, the power made to bear on a stump rose from twenty-five to eight hundred tons purchase; and, with suitable gear, I see not why it might not be indefinitely increased so as to move mountains as well as massive roots.

The stumps he routed were not pigmies, but altogether respectable in girth and expanse of root, and most of them rather recently cut; and had they remained undisturbed, they might have outlasted the most robust man or boy, who saw them hurled from their dominion. The average time consumed on each may have been five minutes, though sometimes, by the aid of cross-chains, four and five would heave up at once. A few hours covered a large area with huge carcasses; it was what "war hawks" might call a "well-fought field," with, however, no blood or groans. The spectators were impressed with but one sentiment, to which they gave enthusiastic utterance, namely, that the "stump puller" has the element of prodigious power, a power easily applied in promoting the good appearance and value of rocky and stumpy lands. Every farmer who has lands to cultivate or occupy by buildings, knows that their value is much diminished by these odious excrescences—excrescences that may out-live him and his sons after him; the many live and live on through sunshine and storm, and look with scorn on the longevity of the great majority of mortals.

Moreover, as the eye was made for beauty, and beauty for the eye, who can look on a lawn-like, verdant field, without being happier? Or who can look on a field snarled and blackened by stumps, without wishing these "eye sores" dispatched to Guinea or Botany Bay? Still, many a farmer will perhaps daily pass and repass, for a quarter of a century, a spectacle of such deformities, and wish it gone, all gone, and he, and the son in his likeness, will live wishing, and die wishing, and there ends the stump stir with him. Whereas, should he arouse himself to a little action, and apply this "puller," the first day might throw up an acre of these "eye sores," the second make of them a durable fence, the third plow the field, the fourth plant or sow it, and then, loaded and waven with fertility, it would at once remind us of the field that Heaven had blessed.

The economy of this operation must not escape notice. Stumps were drawn on this occasion, in a few minutes, at a few cents expense, which, by ordinary process, would have demanded several days and dollars to extirpate. Had some of them lay on railroad route, it was estimated that to remove them, by Irish labor, might have cost from ten to twenty dollars.

This machine should rank among the many appliances of a civilizing kind which characterize our times. It causes the crooked to become straight and the rough places smooth, and spreads fertility and a charm over rugged nature. No town, no group of towns, can apply this instrumentality to their fields without sensibly promoting their beauty, thrift and value. The town of Orange, where the proprietor resides, is a happy illustration of what we have in view. Gentlemen were present from that place, and testified touching its practical bearings among them, where it is most known and has been most used. Many of their best fields have been brought into notice, in some sense created, by the agency of this machine. This may be known and read of all, for, as the intelligent traveller glides through the smiling village of South Orange, he everywhere sees evidences of fresh improvement; he sees large fields of rough land becoming smooth, and new and beautiful fields breaking into view, as by enchantment, and on inquiry he learns that the Patent Stump Puller has had a hand in all this advancement.

DESTRUCTION OF WOOD.

Dr. Hawks, in a late address before the New York Geographical Society, said:

"Civilization uses a vast amount of wood, although for many purposes it is being fast superseded; but it is not the necessary use of wood that is sweeping away the forests of the United States so much as its *wanton destruction*. We should look to the *consequences* of this. Palestine, once well wooded and cultivated like a garden, is now a desert—the haunt of Bedouins; Greece, in her palmy days the land of laurel forests, is now a desolate wast; Persia and Babylon, in the cradle of civilization, are now covered beneath the sand of deserts produced by the eradication of their forests. It is comparatively easy to eradicate the forests of the North, as they are of a gregarious order—one class succeeding another; but the tropical forests, composed of innumerable varieties, growing together in the most democratic union and equality, are never eradicated. Even in Hindostan, all its many millions of population have never been able to conquer the phœnix-life of its tropical vegetation. Forests act as regulators, preserving snow and rain from melting and evaporation, and producing a regularity in the flow of the rivers draining them. When they disappear, thunder storms become less frequent and heavier, the snow melts in the first warm days of spring, causing freshets, and in the fall the rivers dry up and cease to be navigable. These freshets and drouths also produce the malaria, which is the scourge of Western bottom-lands. Forests, though they are first an obstacle to civilization, soon become necessary to its continuance. Our rivers, not having their sources above the snow-line, are dependent on forests for the supply of water, and it is essential to the future prosperity of the country that they should be preserved."

EXTRACTS AND REPLIES.

GRUBS IN CORN.

Mr. Editor:—Will you, or some of your numerous correspondents, inform me through the columns of the *Farmer*, whether there is any remedy for the *grubs* which are destroying whole fields of corn, pumpkins and young hops, in this vicinity. Verdant Farmer.

Elmore, Vt., June 16, 1855.

Remarks.—We know of no remedy but that of the thumb and fingers; and a careful application of these will accomplish much. It is a tedious and unpleasant process, we admit, but a necessary one. There is seldom but one worm in a hill, and an observing eye will soon detect his operations upon one of the plants, and a plunge or two of the fingers into the ground will bring him to the light, when he may be despatched. Perhaps some of our writers may suggest a different remedy.

THE RAPE PLANT.

Dear Sir:—"J. R.," in the first June number of the *Farmer*, recommends the raising of rape or cole for various purposes. Having received a parcel of seed from the patent office, through the politeness of the Secretary of the Massachusetts Board of Agriculture, the last year, perhaps some of your readers would like to know of my success. I was requested, if successful, to report the result to this (the patent) office.

I sowed a part of the seed as soon as received, (in May, 1854,) on good corn land. The plants came up well and flourished finely until September, when the leaves withered and fell off, leaving the bare stem, without flowering, a dry monument to mark the spot where something of the cabbage kind had grown. A neighbor, wishing for cabbage plants, took some two hundred of the plants and transplanted them for *cabbage*, and his success was the same as mine. Farther experiments may be more successful, but I fear *rape* in our vicinity will prove an uncertain crop.

Sudbury, Mass., 1855. A. B.

YOUNG MEN—CATTLE SHOWS.

Mr. Editor:—Cattle-show day is a day of great importance to us farmer boys—a kind of a second fourth of July. But still, it is not a day of as much importance as we wish it were, and think it ought to be. A number of the "plow-boy family" met a few evenings since, and were talking—I will not say *discussing*, for fear you may think we were reaching beyond our sphere—about our cattle-shows, and the thought naturally arose, why cannot we take an active part and have direct interest in our fairs? We are now limited to a certain extent, in a few particulars, and in these are under the control of others, so that, if there are any honors or satisfaction gained, *they* obtain them. In other words, while we are beating the bush, they are catching the bird. We wish for something we can exercise our own abilities upon, free and independent of others. Why cannot we have a declamatory or oratorial exercise? There are many wealthy and influential men, we have no doubt, that would be glad to promote such an object, if they understood it rightly, and grant a few small prizes for the competitors. It would be of no expense to the society; a rude stage upon a common would answer all purposes; and here the young farmer might be preparing himself, in several ways, for future usefulness. There are many ways, perhaps, better than this, in which the officers of our societies, had they inclination, might help the forgotten plow-boy and stimulate him to higher examples. Will they not take note of this, and remember us at future shows? Farmer Boy.

Remarks.—Yes, Mr. "Plough Boy," we will take note of what you say, as your suggestions are of a practical character, and in the right direction. Our Middlesex Show is to be holden on the 26th of September next, and we now offer one premium of *three dollars* and another of *two dollars* for the first and second best declamation upon any agricultural subject, by any young man between the ages of 14 and 20 years. The exercise to take place at some convenient time on that day, by the composer himself, and not to exceed ten minutes in the delivery. Competitors to be eligible from any town in the State.

PRESERVING FRUITS.

My Dear Sir:—I send enclosed a notice of a new kind of cans for preserving fresh fruits and vegetables. Can you give your readers any information concerning them? What their size, price, &c., and whether they can be procured in Boston? It is very desirable to find something to accomplish the object proposed, easily and economically. If you can aid the public by advice or information on this subject, you will do a good work. Yours very respectfully,

Bedford, June 7, 1855. W. Cushing.

Remarks.—Arthur's patent air-tight, self-sealing can, is manufactured and sold by Arthur, Burnham & Co., at 60 South Tenth Street, Philadelphia. The prices are for pints, $2 a dozen; quarts, $2,50; half gallon, $3,50; and gallons, $5,00. It is said the can receives no injury whatever in being sealed or unsealed. Green currants or gooseberries may be kept perfectly good for many months by sealing them up with wax or rosin in clean junk bottles. We have tomatoes now (June 25) perfectly good put up in bottles last October. They were stewed and salted a little, and turned hot into hot bottles, and sealed with common red sealing wax—the whole being a perfectly simple and easy process.

ABOUT POTATOES.

Mr. Editor:—Being a subscriber of your valuable paper, I have noticed for the last few weeks a controversy upon the potato between "S. P." and "B. W." Having myself had some experience in the business of raising potatoes, I wish to relate an instance that came under my observation. In the spring of 1854 I planted an acre of ground with potatoes. One-half I planted with large and the other with small potatoes. The ground upon which the small potatoes were planted received the same amount of manure and the same attention in hoeing. I received 120 bushels from the acre; 70 bushels from the part planted with large and 60 from the part that was planted with small potatoes. Now if "B. W." will explain this falling off, not only of the amount but size of the potatoes, I would be obliged.

Yours truly, C. S.

TO DESTROY THE ONION MAGGOT.

Tobacco steeped in water and poured along the rows, directly upon the plant, will effectually prevent the ravages of the onion worm. This I have from several reliable gardeners, who speak from experience, and thinking it worth knowing through the community, I send the statement to the *Farmer*, (*everybody's newspaper*,) for publication. Ingham.

Lebanon, N. H., June 18, 1855.

BUCKWHEAT OR TURNIPS.

What can I sow to advantage on a piece of new land prepared for millet, (but cannot get the seed,) a part of which is well fished. I am more in want of a crop than benefit to the land.

W. P. H.

Remarks.—There is plenty of time for a crop of buckwheat, ruta bagas or flat turnips.

GRAPES AND WINE.

In your paper of last July, I observed a valuable piece on the use of the grape as a food or medicine, which was too good to pass unnoticed.

The most eminent physicians, and men who have travelled in grape countries, agree with you. It is a common saying, that in wine countries there are but few drunkards. The writer in the *Observer* finds an exception in Paris? What less could be expected of a city like Paris. There is a wonderful difference between a man's sitting under his own vine, eating the fruit and drinking the juice, and going to grog-shops and other detestable places, and taking their wines and other intoxicating poisons.

Alcohol, whether clear or adulterated, tends to create unnatural thirst, till, like a poisoned rat, he drinks himself to death. The pure juice of the grape, or the fruit, tends directly the other way, and also to give strength and health and vigor to the system.

The grape is of the easiest culture, by slips, cuttings, grafting, or transplanting from the swamps. There is in this region the best of table grapes, and the best of wine grapes of native growth; the former ripening in August, and being sweet, productive, and free from pulp. I suppose they may be found elsewhere. There are families in this place who have made and kept for years excellent wine for medical purposes, of fine flavor and color, and without adding alcohol, spirit, or coloring matter to the wine. There are two skilful physicians near by, who use this wine, and no other, for medicine.

One of the greatest pleas for using intoxicating liquor is, the idea that our Saviour used, directed it, &c. A very great mistake and absurdity. The wine he made was that which he distinguished by calling it the fruit of the vine. Pliny, who lived at the time of our Saviour, says good wine was that which was destitute of spirit. Plutarch calls that wine best which is harmless, and that the most useful which has the least strength, and that the most wholesome in which nothing has been added to the grape.

The Commissioner of Patents has had a bottle of excellent wine presented to him, which, he says, has no intoxicating power. I apprehend no difficulty in making such wine, and having it improve by keeping. The grape can be kept the year round, and the juice pressed out when wanted. Every family, or physician, or church officer can make what is needful, and keep it in small quantities easier than in large, and know what they are using.—Phineas Pratt.—*American Agriculturist.*

PROFITS OF FRUIT.

Examples almost without number may be given, where single trees have yielded from five to ten dollars a year in fruit, and many instances in which twenty or thirty dollars have been obtained. If one tree of the Rhode Island Greening will afford forty bushels of fruit, at a quarter of a dollar per bushel, which has often occurred, forty such trees on an acre would yield a crop worth four hundred dollars. But taking but one-quarter of this amount as a low average for all seasons, and with imperfect cultivation, one hundred dollars would still be equal to the interest on fifteen hundred per acre. Now, this estimate is based upon the price of good winter apples for the past thirty years, in our most productive districts; let a similar calculation be made with fruits rarer and of a more delicate character. Apricots, and the finer varieties of the plum, are often sold for three to six dollars per bushel; the best early peaches from one to three dollars; and pears, from hardy and productive trees, two to five bushels per tree, with good management, is a frequent crop; and on large pear trees five times this quantity. An acquaintance received eight dollars for a crop grown on two fine young cherry trees, and twenty-four dollars from four young peach trees, of only six years' growth from the bud. In Western New York, single trees of the Doyenne or Virgalieu pear have often afforded a return of twenty dollars or more, after being sent hundreds of miles to market. An acre of such trees, well managed, would far exceed in profit a five hundred acre farm.

But the anxious inquiry is suggested, "Will not our markets be surfeited with fruit?" This will depend on the judgment and discretion of cultivators. With the exception of the peaches of Philadelphia and the strawberries of Cincinnati, a great deficiency is still felt in all our large cities. Of these two fruits, large plantations are brought rapidly into full bearing. The fruit, when ripe, quickly perishes, and cannot be kept a week; yet thousands of acres in peach trees, bending under their heavy crops, are needed for the consumption of the one city, and broad, fifty acre fields, redden with enormous products, send many hundred bushels of strawberries daily into the other. If, instead of keeping but three days, sorts were now added that would keep three months, many times the amount would be needed. But the market would not be confined to large cities. Railroads and steamboats would open new channels of distribution throughout the country, for increased supplies. Nor would the business stop here. Large portions of the eastern continent would gladly become purchasers, as soon as sufficient quantities should create facilities for a reasonable supply. Our best apples are eagerly bought in London and Liverpool, where nine dollars per barrel is not an unusual price for the best Newton Pippins. And by being packed in ice, Doyenne pears, gathered early in autumn, have been sold at mid-winter in Calcutta, peaches have been safely sent to Jamaica, and strawberries to Barbadoes. The Baldwin apple has been furnished in good condition in the East Indies, two months after it is entirely gone in Boston.

GOOD ADVICE.

Eat only what is proper food;
Drink only that which does you good;
Spend only what you can afford;
Lend only what will be restored;
Then you will have no cause to say,
"I was a fool on yesterday!"

FADELESS IN A LOVING HEART

Sunny eyes may lose their brightness;
Nimble feet forget their lightness;
Pearly teeth may know decay!
Raven tresses turn to gray;
Cheeks be pale and eyes be dim;
Faint the voice and weak the limb;
But though youth and strength depart,
Fadeless is a loving heart.

SIMPLE TRUTH.

There's not of grass a single blade,
Or leaf of loveliest green,
Where Heavenly skill is not display'd
Or Heavenly Wisdom seen.

FAMILY JARS.

Jars of jelly, jars of jam,
Jars of potted beef and ham,
Jars of early gooseberries nice,
Jars of mincemeat, jars of spice,
Jars of orange marmalade,
Jars of pickles, all home made,
Jars of cordial elderwine,
Jars of honey superfine:—
Would the only jars were these
That occur in families.

Hay for Cows in Summer.—An observing, intelligent and successful farmer informs us that he is in the practice of feeding his cows with hay in summer, particularly if the season is such as to afford flush pastures. His reasoning is that a full, rapid and vigorous growth of grass gives to cattle that feed upon it, a desire for something to absorb the excess of the juice in their food. Dry hay they devour greedily, and though in ever so small quantities, evidently with the most beneficial effects. Every farmer must have observed that in dry seasons, horses, cattle and sheep, kept in good condition upon herbage parched and apparently scant, while in wet seasons, in tall pastures, though always full, the process of fattening with them was slow. Dry fodder in such cases is required to give substance and tenacity to the green, and can be profitably used by feeding it to horses and cattle.—*Newburg Telegraph.*

For the New England Farmer.

DOES THE CURCULIO PUNCTURE THE APPLE?

Mr. Editor:—I have a fine-looking young orchard of 100 Baldwin trees, set twelve years ago on rocky upland on the west side of Mystic Pond; the soil is uneven, from gravelly knolls to loamy hollows, underlaid with blue gravel; it is an excellent soil for peach trees both to grow and to bear; it is situated high, commanding a view of Boston and vicinity, yet it is mainly what would be called a warm, sheltered location, on account of the forests above it on the north-west.

This orchard has blossomed repeatedly, yet no fruit is obtained of any amount: for the fruit is punctured in the same manner as plums by the curculio, but with not exactly the same results; the fruit, by means of the marks, if it holds on, becomes knotty as it grows, and consequently worthless; the marks are already made to the number, on some, of seven or eight, or more.

There was a fine blossom this year, enough to produce, were the trees on the plain, two hundred barrels of fair fruit; but with the operations of those insects I do not expect hardly a single barrel of handsome apples.

Now can you or any of your able correspondents give any light upon this subject, and tell me whether I can ever expect fair apples on that soil and location? If things go on as they have thus far, the sooner I cut down the apple trees and set out peach trees, the better. I should have remarked that the land has been kept under the plow the whole time, and good crops of vegetables obtained. John P. Wyman.

West Cambridge, June 16, 1855.

Remarks.—We have no doubt that the curculio does puncture the apple. What the remedy is to be we cannot say. Lime, plaster or ashes will prevent their depredations on plum trees, but the operation on an orchard, unless the trees were quite small, would be too tedious and expensive. Will correspondents enlighten us?

TROUTING.

We put into the brook just below a smart foamy fall. We have on cowhide shoes and other rig suitable. Selecting an entrance we step in, and the swift stream attacks our legs with immense earnestness, threatening to take us off from them. A few minutes will settle all that and make us quite at home. The bottom of the brook is not sand or gravel, but rocks of every shape, every position, of all sizes, bare or moss-covered. The stream goes over them at the rate of ten miles an hour. The descent is great. At every few rods cascades break over ledges and boil up in miniature pools below. The trees on either side shut out all direct rays of the sun, and for the most part the bushes line the banks so closely, and cast their arms over so widely, that they create a twilight—not a gray twilight losing its lustre, but a transparently black twilight, which softens nothing, but gives more ruggedness to the rocks, and a sombre aspect even to the shrubs and fairest flowers.

It is a great matter to take a trout early in your trial. It gives one more heart. It serves to keep one about his business. Otherwise you are apt to fall off into an unprofitable reverie; you wake up and find yourself standing in a dream, half-seeing, half-imagining, under some covert of over-arching branches, where the stream flows black and broad among the rocks, with moss-green above the water and dark below it.

But let us begin. Standing in the middle of the stream, your short rod in your hand, let out twelve to twenty feet of line, varying its length according to the nature of the stream, and, as far as it can be done, keeping its position and general conduct under anxious scrutiny. Just here the water is mid-leg deep. Experimenting at each forward reach for a firm foothold, slipping, stumbling over some uncouth stone, sliding on the moss of another, reeling and staggering, you will have a fine opportunity of testing the old philosophical dictum that you can think of but one thing at a time. You *must* think of half a dozen; of your feet, or you will be sprawling in the brook; of your eyes and face, or the branches will scratch them; of your line, or it will tangle at every step; of your far-distant hook and dimly-seen bait, or you will lose the end of all your fishing. At first it is a puzzling business. A little practice sets things all right.

Do you see that reach of shallow water gathered to a head by a cross-bar of sunken rocks? The water splits in going over upon a slab of rock below, and forms an eddy to the right and one to the left. Let us try a grasshopper there. Casting it in above and guiding it by a motion of your rod, over it goes and whirls out of the myriad bubbles into the edge of the eddy, when, quick as a wink, the water breaks open, a tail flashes in the air and disappears, but re-appears to the instant backward motion of your hand, and the victim comes sklittering up the stream, whirling over and over, till your hand grasps him, extricates the hook and slips him into the basket. Poor fellow! you *want* to be sorry for him, but every time you try you are glad instead. Standing still, you bait and try the other side of the stream, where the water, wiping off the bubbles from its face, is taken toward that deep spot under a side rock. There, you've got him! Still tempting these two shores, you take five in all, and then the tribes below grow cautious. Letting your line run before you, you wade along, holding on by one branch and another, fumbling with your feet along the jagged channel, changing hands to a bough on the left side, leaning on this rock, stepping over that stranded log. Ripping a generous hole in your skirt as you leave it, you come to the edge of the petty fall. You step down, thinking only how to keep your balance, and not at all of the probable depth of the water, till you splash and plunge down into a basin waist deep. The first sensations of a man up to his vest pockets in water are peculiarly foolish, and his first laugh rather faint. He is afterward a little ashamed of the alacrity with which he scrambles for the bank. A step or two brings him to a sand bank. But while *you* are in a scrape at one end of your line, a trout has got into a worse one at the other. A little flurried with surprise at both experiences, you come near losing him in the injudicious haste with which you overhaul him.—*Beecher's "Star Papers."*

For the New England Farmer.

ROOM FOR IMPROVEMENT.

Mr. Editor:—I have been a reader of your paper some three or four years, and, of all the agricultural publications with which I am acquainted, I give it the preference. Its columns are filled with matter interesting to every farmer. Through it we learn the results of experiments, and practices of farmers in various parts of the State, country and world.

We have a seminary of learning in our town, that manufactures school-teachers by the dozen, but where are our agricultural writers? We have farmers among us who are growing rich by raising hay, milk and cabbages, and others growing poor by raising weeds, lice and caterpillars. Will not both classes give some of their experience? We have no farmers' club, but political clubs are well attended. Our farmers annually buy several hundreds of bushels of corn, yet some raise corn to sell.

If a person, in passing through our town by railroad, were looking for the beautiful in natural scenery, and highly cultivated farms, he would soon wish to take up a morning paper and have the car-wheels "fly swifter round;" and if he should have occasion to alight at the stopping places on the road, at one he will find himself on the skirts of a barren plain, with here and there a few poor old cows, vainly trying to satisfy the cravings of hunger by clipping its scanty growth of grass; at another, the cars will leave him upon the edge of a swamp, with not an acre of cultivated land, or scarcely a human habitation in sight; but his ears may be saluted with the hooting of owls and the melody of bull-frogs. Yet there are pleasant locations, fertile farms, handsome residences and beautiful orchards, away over the tree-tops in the distance. R.

Seekonk, Mass., March, 1855.

For the New England Farmer.

INTERNAL STRUCTURE OF THE EARTH.

Mr. Editor:—In the article selected from the *Scientific American*, in your last on this subject, the author did not, as I could discover, undertake to account at all, according to his theory, for the phenomena of volcanoes, hot springs, &c., taking into *especial* regard such as the geysers of Iceland, and water volcano in Central America. I may add here that the discussion of this subject receives additional interest at this time, from the fact that Vesuvius, that once overwhelmed two "cities of the plain," and in the admiration of the terrific scenes attending one of its most remarkable eruptions, so graphically described by Pliny the younger, the elder lost his life, is now again, for the fiftieth time since the Christian era, belching forth its floods of molten elements and deluging the country with desolation. R. H. H.

Cabbages.—The value of cabbages for breeding, especially dairy stock, is probably greater than is usually supposed. The field cultivation of this plant is much on the increase among the farmers of Great Britain. The amount of nutriment matter which is capable of being raised from an acre of land under cabbage is, comparatively with most other crops, very large, and with an extended knowledge of this fact, the cultivation of it will be probably much extended. The land requires to be rich, deep, and somewhat moist. The rows should be at least 30 inches apart, and the plants not less than 24 or 26 inches. The two best varieties for field cultivation are the Drumhead and the York.

HAY AND HAY-MAKING.

A seasonable subject, truly, but one upon which we can hope to say little that will be new to all our readers. But there are some things which need to be repeated, as the season for attention to the subject returns, so we recall some facts and suggestions on Hay and Hay-making. In what stage of its growth grass should be cut, and how it should be cured, are questions of considerable importance—but questions which are not authoritatively decided. We will state some facts relative to both subjects—drawn from chemistry and analogy—but bearing more particularly in favor of early cutting and shade curing, which are thought by many of our most intelligent farmers to secure the greatest nutritive value of the hay.

Chemistry shows us that all plants contain the largest amount of matter soluble in water at the period of flowering, and that the sugar and gluten of the grass, and a few other soluble ingredients, constitute its chief value as food for animals. These rapidly diminish as the seed forms, changing into insoluble woody fibre, and the hay, which should, as far as may be, resemble grass in its most perfect state, is worth much less if not made until after that period. There are but few exceptions to this rule; among these are the Kentucky blue grass, the June grass and some others, which furnish but a light amount of stem and are most valuable for their leaves. They continue growing through the summer, and hence may stand far past the flowering age beneficially.

Those who advise cutting hay when the seed is fully formed, bring forward as an argument in favor of the practice, the fact that hay made from ripe grass yields the greatest amount of extract when boiled, and must therefore contain most nutriment, but it is now shown that the boiling very imperfectly imitates the process of digestion, and both analysis, and experiment with the living animal, confirm the fact that the best hay is that made from grass cut and properly cured when nearest the point of blossoming.

The process of curing which shall most perfectly retain the nutritive properties present in the plant, is the best process. In drying herbs for medicinal and culinary uses, the experience of many centuries teaches, that drying in the shade is the only way to secure, to its fullest extent, the desired object. In making hay this cannot be entirely accomplished, but the plan which follows it most closely, that of curing in the swath and cock, is a good and safe one—advantageous also, as requiring less exposure to injury from rain than any other.

Clover hay and coarse herd's grass especially, need to be cured in this way, as when dry, many leaves and blossoms drop off and are lost by the handling necessary to gather and secure them. When mowed, let the grass get fairly wilted and the moisture dried off while in the swath, with perhaps, a single thorough shaking up and spreading, and then be put into cocks, and it may be secured with very little loss. The partial fermentation or "sweating" which it undergoes causes but slight change in its constituent parts—save that it separates the water therefrom,—and after standing thus twenty-four hours, it needs but little after-tending to prepare it for the mow or stacks, and has far less of that harsh or strawy tendency which it would possess if cured in a different manner. Care should be exercised in curing in this way, not to put up the hay before it is fully wilted, and that the cocks be small and well constructed, so that the "sweating" process may not be carried to excess, and induce so great a fermentation as to decompose the sugar of the hay—changing it to alcohol and carbonic acid.

The weather has a great influence on the real value of the hay crop, but that is a matter beyond our control. If one has hay down and the weather proves changeable, with frequent showers, the less the hay is stirred the better, for it will retain its value while lying wet in the swath, much longer than if disturbed with repeated dryings and wettings. Nothing so injures hay as washing by rains, and this, if many times repeated, will totally destroy its value.

We might add further practical directions in regard to haying, but our present article is about as long as those interested will care to read, at this season. Beside, haying will not commence under a fortnight!—*Rural New-Yorker.*

BUTTER MAKING.

Not one pound in five of the butter sold in our cities under the name of "Goshen," &c., and very little "country butter," is fit for human use. Butter makers should remember these few short rules:

The newer and sweeter the cream, the sweeter and higher flavored will be the butter.

The air must be fresh and pure in the room or cellar where the milk is kept.

The cream should not remain on the milk over thirty-six hours.

Keep the cream in tin pails or stone pots, into which put a spoonful of salt at the beginning, then stir the cream lightly each morning and evening; this will keep the cream from mouldering or souring.

Churn as often as once a week, and as much oftener as circumstances will permit. Upon churning, add the cream upon all the milk in the dairy.

Use nearly an ounce of salt to a pound of butter.

Work the butter over twice, to free it from the buttermilk and brine, before lumping and packing.

Be certain that it is entirely free from every particle of buttermilk or coagulated milk, and it will keep sweet forever. In Scotland, a syphon is sometimes used to separate the milk from the cream, instead of skimming the pans.—*Exchange.*

For the New England Farmer.

ITEMS FROM IOWA, &c.

Mr. Editor:—My last items to you were of January 21st, and up to that date we had weather as remarkable for mildness, as it has been remarkable for its severity, the remainder of the winter. Our spring is about three weeks later than that of the previous year. We had fragments of snow in April. We have had two copious rains this spring, and the ground is tolerably well saturated.

Winter wheat never looked more promising here, and from reports, I judge the crop is unusually promising throughout the western States. Probably there has been an unusual quantity of spring wheat sown. Judging from present indications, there is every hope that there will be an abundance of food at lower prices than the present.

There is now a fair promise of a good crop of fruit, of every description. Even peaches, in some locations, promise a feast. Since the above was written, we have had two severe frosts, on the 8th and 9th of May, which, perhaps, have taken a few facts from my calculations on fruit. However, of that I may report hereafter.

Corn is one of our staple crops—in fact, it is the reliable crop, failing last year as an exception. The mode of cultivation of corn here may be new to some of your new subscribers. Plowing is usually done with horses—a good span plowing about two acres per day. It is then furrowed off with a small plow, about three and a half to four feet between furrows, then crossed with furrows at right angles. The corn is dropped at the crossings, and usually covered with a hoe, though frequently with a horse and shovel plow, or some other similar implement. When the corn becomes large enough to be worked, it is plowed both ways of the rows until about the first of July, then the corn is left to its own care, and wheat harvest demands the attention of "all hands." Seldom is a hoe in a corn-field after planting. A man and a horse can usually "tend" from twenty to thirty acres of corn, usually yielding from forty to sixty bushels per acre. About September, corn enough for fodder for stock is cut and put in shock; the remainder remains in the field and is "shucked" at leisure, from November to January. A two horse wagon passes along the rows, and the corn, as it is "shucked," is thrown into the wagon and conveyed to the corn-crib, which is frequently nothing but a rail-pen. Sod ground is seldom planted to corn. The same ground is frequently planted year after year in corn, without manuring. Let no one suppose that there are no weeds in the virgin soil. It is full of them—more rampant than in New England, and would destroy any corn crop if not subdued. Better culture would raise more corn, but it is a question whether it would pay at past prices.

It would amuse a Yankee teamster to see a western man drive an ox team, sitting, usually, on the wagon, with a long lash and a cracker attached to a long pole, wielded with both hands, almost constantly lashing and cracking his team, accompanied by a generous expenditure of breath, and often trotting his unloaded team like stage horses. Oxen are presumed to be less deserving mercy than horses—perhaps because they have a greater capacity to endure beating, thus graduating mercy, after all.

Your May number has something to say about climates, &c., and I have always found, in all places, that the thrifty had a plenty to do at all seasons; if not hauling and cutting wood, pitching hay, &c. The different climates have different products that demand attention in winter—preparing tobacco for market, ginning cotton, hulling rice, making sugar and molasses, and preparing the ground for the next crop. This, I presume, was calculated for a busy world, and a little experience suggests that the comforts of climate are more nearly equalized than is generally supposed. Southern winters are generally delightful; but even there, where there is no piercing cold, the system is sometimes chilled, shivering and torpid. If the South has delightful winters, the North has delightful summers.

In all warm climates, noxious insects have a longer season of multiplication, and, without experience, you can hardly appreciate the absence of musquetoes, fleas, gauze-winged fleas, &c., &c. A feverish patient never longed for a cooling draught more than I have, in a warm climate, for one summer night's rest, such as I have had in New England climate, such as you all generally have—refreshing sleep.

It is said that Zeuxis, the celebrated painter of Athens, when required to paint a model of beauty, chose six of the handsomest ladies of the city, that he might select the peculiar beauty of each to combine in one Helen. If we could select the desired portions of the year of a half a dozen climates to make one, even then we would probably croak a little, by dint of habit. And if one climate alone possessed all the advantages, that alone would be inhabited, and we would quarrel for elbow room.

"A Reader," who reviewed the *Monthly* for March, expressed a desire for a few more items from "Nemo," before "the shakes should carry him from gay to grave, and never bring him back again." "The shakes!" What terror in that word! "Distance lends" magnitude to the word. When you are right among "the shakes," they are a mere trifle—a bad dream—nothing after it is over. It is only freezing a little too cold, and thawing a little too hot—a little periodic variety, that can be stopped when you are tired of it. From ten to twenty grains of quinine, taken after the dream is past, is sure death on the shakes, only they are a *leetle* hydra-like. I ought to know, "I'm experienced." I've tried it on myself a *hundred* times, and it never failed. I keep quinine "constantly on hand," and begin to like it. No Maine law against my bitters.

Burlington, Iowa, May 25, 1855. Nemo.

HOEING IN DRY WEATHER.

Experience has fully established the fact that corn, and other crops, are essentially benefited by hoeing in dry weather, but the reason why, or the manner how it is done, is not so generally understood. That moisture is formed by stirring the dry particles of earth and changing their relative positions, is generally admitted.

Water is composed of oxygen and nitrogen. These substances are also contained in different proportions, in the earth and atmosphere, and are, to some extent, formed by the action of different particles of earthy matter upon each other, when brought into contact, as done by hoeing. Water acts as a solvent of other substances, and holds them in solution so that they can be taken up by the roots, and made to nourish the growing plant. This is the reason why it is best to sow or plant seeds as soon as possible after the land has been plowed or harrowed. The different particles of matter coming together, form new relations and produce a chemical action, during which heat is evolved, and oxygen and hydrogen are generated and caused to unite, and form water, which, with other substances, act upon the seeds and produces germination, and gives to the new-born plant a vigorous start into existence. After the soil has remained quiet for some time, these substances having exhausted their energy by neutralizing the powers of each other, the plant having absorbed all the elements of nutrition within reach of its roots, it growth becomes retarded, and can only be restored by renewing the chemical action. This can be done by applying some compost manure, or by hoeing or stirring the earth, so as to bring different particles into contact with each other and forming new combinations, and consequently, thus producing a further supply of nutritious matter. Corn, that is hoed every two or three weeks, will come to maturity sooner, produce more, and be better filled on the cob, than it will when treated in the usual way. We would recommend to our farmers to select two or three rows in the field, and hoe it regularly once in two or three weeks, and in the fall inform us of the results of their experiments.—*Anon.*

For the New England Farmer.

TRIAL OF MOWING MACHINES.

Gentlemen: — Having seen an article in your paper, copied from the *Telegraph*, giving an account of a trial of mowing machines at Dedham, and which report seems to convey the idea that Manny's machine was generally considered the best, and learning from an eye-witness that the grass was *very light*, I write to give my brother-farmers the result of my experiments with it.

My first trial was in clover, a portion of which was lodged, with much old stubble at the bottom; the machine became clogged in going a few rods. It was then cleared and tried again and again, until I became satisfied that it would not work in such grass.

I then informed the agent for selling, of whom I had previously purchased it, and requested him to inform the company that the machine would not work in such grass. I then took of the agent for selling the Ketchum machine, one of his on trial; tried it the same day, in the same grass, and it worked to my entire satisfaction—it cut the grass close and smooth. After this, I was informed by the agent for selling the Manny machine that by attaching the reel to the machine, it would work well, and to my satisfaction.

The mayor, some of the aldermen, and several practical farmers, had an invitation, and were present, to witness the second trial of the two machines, which was in an old meadow, that cut about two tons on an average per acre.

The Manny machine was first tried without the reel, and it became clogged in going a few feet; it was cleared and tried again and again, as at first, but with no better success. The Ketchum machine was then tried and worked well, giving decided satisfaction to those present. One of Manny's machines was then tried, with the reel attached, but with no better success. It was then frankly acknowledged by the agent that the machine would not work in such grass in its present construction. The Ketchum machine was purchased by me at this last trial for the use of the alms-house farm, in this city. The last trial, above named, was on the 29th of June, last past. Earl C. Briggs, *Keeper of Alms-House.*

New Bedford, July 5, 1855.

For the New England Farmer.

DOES THE CURCULIO PUNCTURE THE APPLE?

It certainly does. I have repeatedly caught it in the very act, as for several years I have been watching with much anxiety the operations of this insect upon my own fruit, consisting of some scattered old trees, a few in the garden, and an orchard set out in 1850. And I have often expressed my fears that unless there is some check upon the operations of the curculio, it will soon be as difficult in my section to raise either apples or peaches as it now is to raise plums. For the last six years, nearly every apple of the few gathered from my scattered trees has been more or less deformed by the punctures of the curculio. Even the fruit of an unusually sour and crabbed "Native" has been as badly used as the more valuable varieties. Indeed, I noticed last year,—what I thought a little strange,—that the fair-skinned Porter grafted into an old tree with several other varieties, was much less hacked than the other kinds. My young trees have borne a very little fruit for three years past, but I saw nothing of the curculio among them until last year, and then in but two or three trees. This year I believe their marks are to be seen on every tree that has set any fruit. I have spent considerable time in jarring the scamps upon a sheet, as recommended in case of plums, and have had the satisfaction of grinding scores of them between the thumb and finger.

The statement of Mr. Wyman agrees perfectly with my observation of the effects of this insect upon the apple. But as it "stings" my peaches as well as apples, I should not expect any great advantage from cutting down the apple trees and setting out peach trees in their place, as he proposes, now that the curculio has possession of the ground.

As to remedies or preventives, I have not a word of encouragement, except by reference to the early promise that man was to have dominion "over every creeping thing that creepeth upon the earth," and to a faint hope that "man" may yet perceive that his "mission" is rather to subdue the earth than his fellows.

A neighbor who succeeds in raising large crops of plums informs me that he has tried all such prescriptions for the soil, as salt, lime, ashes, &c., and found them utterly inefficacious for the destruction of the curculio, and that he now depends mainly upon his thumb and fingers. Last year I cooped a hen and brood of chickens under an apple tree in the garden; but I jarred upon the sheet as many curculios from that tree, as from the others without the chickens. S. F.

Winchester, *July*, 1855.

For the New England Farmer.

CITY AND COUNTRY LIFE.

Mr. Editor:—Real life in city or country can only be measured by actual residence and positive experience. While a city life presents its daily changing phases, its Babel tongues, its confused, fierce commotion—country life leads on to quiet, sweetened with the genial breeze, far away from the great cess-pools of vice, the mind rallies with new hope and contentment in its allotted home.

Why this itching for city life? Is it for riches, so easily gained, and so suddenly lost? Is it the millinery and fancy trappings of life that so fascinate us? Is it to witness beggars by scores who are sure to make their professional *calls* about breakfast time? Is it to be jostled by the multitude, the thunder of carriages, dust, smoke and confusion, that we so love? Is it to meet with better, or more chaste society? Is it to improve and elevate our morals? Is it because we are beset with less danger? Is it the safer playhouse for our children? Is it that less of thieves, burglars, lewd and lascivious nature, shall meet us at every corner? Where will such like questions end?

In this mass of all nations, in this multitude, *with* and *without* occupations, we are overwhelmed with the one idea—"how do they all live?"

But not to penetrate city life any longer, let us look through the bars and see what there is inviting in country life.

The larch tree in the forest—the sweet bloom of the orchard, the clover-head that sweetens the air, the bird that sings us to sleep at evening, and awakens us in the grey of the morning, the "babbling brook," the waving wheat-field, the farmer's new hay, the vernal breeze with its "balm of a thousand flowers," how they enchant the uncaged bird when thrown from the meshes of city confinement.

There, we meet no "*fashionable*" silken trails, sweeping clean the side-ways, to be trodden upon by dirty boots, (a daily occurrence in Broadway.)

There, the little girls wend their way to school in comely attire, perchance to worry a butterfly, or disturb the "Quaker Grasshopper" in his dusty nook. What rural, charming, child-like sports, compared with her little ragged sister, whose city occupation in rainy days is to stand with bare, beef-red feet, ankle deep in cold mud, sweeping the cross-walks for gentlemen's *clean boots*, and as they pass she says, reaching out her hand with an *upward*, *imploring look*, "please give me a penny, sir," and too often, is the cold, heartless response—"get out of my way." Are there no tears for this ragged child?

While the merchant *madly* or even *cautiously* pursues his work of gain, 95 per cent. of his number fail of success. Not so with the farmer,—he rarely fails; inspired with the breeze that waves his corn and freshens his soul with hope, satisfied with *moderate* gains, he dignifies the noble destiny of man. His "Wall Street" is the field of noble toil and honest gain. His is not the interest of usury, not an insidious speculating scheme to entrap his neighbors, and bring their children to want. No "fancy stocks" are jobbed at his farm. He deals in a *substance*, wrought out by the plow and the sickle. His "broker's office" is the leanto and the sheepfold, where the *fleece* is nurtured and matured for honest humanity, not to impoverish and starve his neighbor by *fleecing* his pockets.

In stating the case, it is without desire of exaggeration, or to overdraw the picture. Whatever deductions may be made, let the candid inquirer decide what is the difference between city and country life. P.

Brooklyn, *L. I.*, *June* 16.

FARMERS' MEETING AT HILLSBOROUGH BRIDGE.

The President being absent, Col. Hiram Monroe, of Hillsborough, one of the Vice Presidents, took the chair. The meeting was organized by choosing Brooks Shattuck, of Bedford, Secretary pro tem.

The Chairman announced the subject for discussion to be, *The Winter Management of Stock*, and having been appointed to open the discussion, he proceeded to remark that he considered the rearing and management of Stock of great importance to the farmers of the county. The kind of stock kept, the care, food and manner of feeding, should claim his attention; thought cattle should be fed at regular intervals—considered that roots were of great benefit to cattle, fed in connection with dry hay; that roots however should be fed regularly through the feeding season; had observed that when he had fed them a part of the winter, and then discontinued them, cattle seemed to derive little good from them; he would proportion the daily quantity so that it should be equal through the feeding season.

He had experimented on two heifers, giving to one good hay, and to the other a few carrots in connection with the hay. In the spring the one that had the carrots had made more flesh and was much the best through the next season.

Mr. Monroe usually lets his cattle out at 9 or 10 o'clock A. M., and ties up again at 2—feeds all his fodder in the barn except some that is very poor.

Mr. Charles Gates, of Antrim, said that in order to get a good animal, the foundation must be laid the first year; he had been successful in rearing calves without milk, by giving one-third barley to two-thirds oatmeal made into a porridge; calves fed upon this had made as much growth as upon milk.

Mr. Gates thought much benefit was derived from cutting the fodder fed to cattle; he had kept a horse through the winter on oat straw and hay cut and well mixed together, the nett cost of which did not exceed ten dollars, exclusive of the labor of preparing the food, and of feeding it out.

We did not understand whether Mr. Gates added meal of any kind to his straw and hay; but conclude they get a dusting from the meal bag.

James Walker, Esq., of Bedford, remarked that he had paid much attention to the rearing and crossing of stock, and like Mr. Gates, would lay the foundation for a good animal during the first year; this he would do by giving the lighter part of the milk, or that which remains after the milkmaid has taken a portion.

Mr. Walker expressed the opinion that the parsnip was much the best root to feed out to stock; that cattle should be tended regularly and treated kindly; that bedding down at night added to their comfort; he disliked to have his cattle remain out late in the afternoon.

Mr. Walker presented to the meeting a specimen of the parsnip that he raises; they were of mammoth size and length, and indicate that friend Walker has taken advantage of the quite recent discovery that we farmers have a farm under a farm.

B. F. Cutter, of Pelham, said that he had not paid much attention to the raising of stock; but from reading and observation, he was convinced that much improvement had been made in relation to the kind kept, to food and general treatment; thought kind treatment of much importance, and placed much stress on regular feeding. Some milkmen in his vicinity were in the habit of keeping their cows in the barn through the entire day, and thought that by so doing they obtained more milk than where their cows remained out a portion of the day.

Mr. Morris, of Hillsborough, remarked that although he was not a farmer, yet he had employed oxen and horses on heavy stone teams, and was satisfied that cattle would do more work and stand it better fed on cut feed, with meal added, than when fed on dry hay, with the meal given separately. He was acquainted in Caledonia County, Vermont, and had noticed there the cross of the Devon with the best native, as excellent milch cows; he had also noticed that farmers in the upper part of the State, were in the habit of letting their cattle (young?) remain in the yards during the night, having sheds for them to go under in stormy weather.

At this point in the discussion it was voted to adjourn until 2 o'clock.

On meeting after the adjournment the discussion was profitably continued until 3 o'clock, when the chairman introduced to the meeting B. F. Cutter, of Pelham, who gave a very instructive and practical address on Fruit Culture.

After the address, Mr. Wallace, of Bedford, suggested by way of inquiry, whether the grafting of different kinds of fruit near each other, or the grafting of good fruit near the common stock, did not cause a deterioration in the quality of the fruit. He inferred that this might be the case from the fact that the different kinds of the same species would mix through the blossom. All had no doubt observed this peculiarity in the mixture of different kinds of corn; the same was equally true in regard to every other vegetable, some will mix at greater distances than others. Botanists have given one instance at least where the pollen had been carried twenty-five miles. Though he doubted the accuracy of this statement, it was an unquestionable fact that different kinds of vegetables of the same species or genus would mix. Mr. Wallace stated a fact that came under his own observation. Two years ago last spring, he planted some summer squash seeds which came up and flourished, producing abundantly; near to them came up accidentally a pumpkin which likewise bore well; he saved some of the squash seeds, and planted them a year ago last spring, they came up in appearance summer squashes; some came up squashes and some bore a fruit resembling in part a squash, about half as large as a pumpkin. He planted the seed from these last spring, and the product was diminutive in size and poor in quality. Hence he contended that different kinds of vegetables of the same species, producing fruit from the blossom should not be planted near each other, especially if intended for seed, lest the product should become worse instead of better.

Remarks were made by Messrs. Prichard, of Deering, Morse, of Francestown, and Shattuck of Bedford.

On motion the thanks of the Society were presented to Mr. Cutter for his address, and a copy requested for the press.

Brooks Shattuck, *Sec. pro tem.*

For the New England Farmer.

CUTTING OF GRASS.

Mr. Editor:—I this morning heard a conversation between two of my neighbors, practical, thinking men, a brief sketch of which I will endeavor to give; perhaps it may induce others to think on the subject. Says A to B, "When shall you commence cutting your grass?" B replies, "Next week, I think; my grass has thickened up much of late, and now promises quite a fair crop, of more than a ton to the acre." Says A, "How much have you?" B replies, "Something over fifty acres of upland mowing, besides runs and meadows." Says A, "Why don't you get one of the *mowing machines*, now so much spoken of, by means of which more than half the expense of cutting can be saved?" Says B, "I have been thinking of this, but am not fully satisfied that it would be to me *any saving* worthy of notice. In the first place, I shall have to expend between three and four hundred dollars to obtain a machine, and a team to work it, as I have but one horse, the wear and tear of which, with the interest on the cost, cannot be estimated less than *fifty dollars* a year—a sum about equal to one-half the whole expense of gathering in my crop. I have generally found, when I have a fair gang of hands, that I can get into my barn as many tons of hay in the month of July, as they perform days' labor, so that it does not cost me more than two dollars a ton to get my hay. Then there is so much uncertainty about the working of these machines, and the kind of machine to be preferred, that I have concluded to wait until the committees, who are investigating the matter, are ready to report. How much more will then be known that can be relied on, will depend something upon the practical knowledge of the committee themselves. I do not think much of the opinions of gentlemen, clad in kid gloves, of the value of *farm implements*. As to all the labors of the farm, I much prefer the conclusions of those who have been accustomed to labor with their own hands." *

July 4, 1855.

☞ Keep your implements always in order. Remember the proverb, "a stitch in time saves nine."

For the New England Farmer.

REMARKS ON THE CURCULIO OR PLUM WEEVIL.

BY S. P. FOWLER.

I had thought it unnecessary to add anything more to what has been already published in the *Farmer*, in regard to the habits of the curculio, but as you have requested some one to reply to the inquiry of one of your correspondents in your paper of June 30th, I will endeavor to comply with your request, and offer some general remarks upon the plum weevil or curculio.

The question put by your correspondent is this—"Does the curculio puncture the apple?" In reply, I would say, they not only puncture the plum, but the apple, pear, peach cherry, nectarine and apricot. I have also seen some of our native fruits under cultivation marked by the curculio, particularly the June-berry (Amelanchier Canadensis.) But it seems to prefer the plum to any other fruit in which to lay its eggs. I have also known, in a few instances, the insect to deposit its egg in the tender terminal shoots of the plum tree, the same having been before noticed by Kollar, in unfruitful seasons, in his treatise, when speaking of the copper-colored plum weevils of Europe. Doct. Harris, the distinguished entomologist, in view of this fact, has truly and beautifully observed, that "we see the care of the Creator for some of the least of His creatures, which he has wisely provided with variable instincts, enabling them to accommodate themselves to the difficulties of the situation in which they may happen to be placed, and thus, even in unfruitful seasons, to provide for a succession of their kind."

The curculio is sometimes in the habit of depositing its eggs in those warty excrescences, incident to plum trees, which are probably caused by disease in the sap or its vessels. This has led some persons to suppose that the black knots are caused by this insect, which I think is a mistake. This habit of the curculio or plum weevil in not confining its operations to the plum, seems to have been overlooked or not understood by many cultivators when they recommend the use of lime, ashes, snuff or other substances in dusting the plum tree and its fruit. All the effect such a practice would have, would be to drive them from his plum trees to other kinds of fruit trees in the neighborhood. Such a mode of procedure would probably give the timid curculio a fright, perhaps a dusty jacket, and cause him to change his quarters, but would by no means lessen his depredations.

Now I would say to the cultivator, your warfare upon noxious insects should be more sanguinary; don't spend your time in seeking to drive them away when committing their depredations, but seek some method to destroy them. *Kill them*, *kill them*, should be your constant aim and motto, at every period of their transformations. My method in destroying the curculio has been, to pick up under the trees all the wormy plums as they fall, and throw them into a mill-pond. Other means can be used to destroy the larva in the fruit, such as steaming them, or putting them into a barrel partly filled with water. If this method of gathering up the wormy fruit and destroying the grub be frequently practised, during the months of June and July, it will greatly lessen the ravages of the curculio. The nimble fingers of children will aid us here, in accomplishing this work; I would say in this connection, I use the same means to rid my grounds of that other pest to fruit-growers, the apple-worm.

The number of cherries punctured by the curculio is greater than I had supposed. Upon examination to-day, of a May Duke cherry tree, I discovered one maggot in every fifteen of the ripe fruit to be found. Cherries ripening early never fall like other kinds of fruit when punctured, and there is no visible appearance of the worm. And as few persons make two bites to a cherry, and are unconscious of the grub within the fruit, they, the grubs, must have a hard and perilous time of it, and probably but few, if any, escape their fate, and are literally devoured alive, meeting an early death, and thus fail to pass through their transformation.

In regard to the black knots on plum trees, my method for their removal is simply to cut them from the branches, when they first appear, and burn or otherwise destroy them; and should the tree be much affected by these excrescences, I cut it down. I also find some kinds of plum trees are less liable to be affected by this disease than others, and such should be sought for and cultivated. The Canada plum, (Prunus Americana) is a hardy native, and less liable to the attacks of insects or the black knots, which renders it desirable for stocks for budding or engrafting upon. The tree thus becomes a dwarf in its habits, and is the more easily protected from the curculio, and reached when applying the knife to the warts or knots. S. P. FOWLER.

Danvers-port, *July* 4, 1855.

For the New England Farmer.

MOWING MACHINES.

MR. EDITOR:—As I was passing the fine cultivated grounds of Gen. S. on Monday afternoon, I heard the clatter of a *mower*, and on examintion found that his men had just commenced cutting his grass, with one of Ketchum's machines, the same that he used last season. It was drawn by a large pair of active, well-trained oxen. The work was completely done; as perfectly as it could have been with scythes in the best experienced hands. The field contained four acres, and the crop averaged about one ton to the acre; there were some patches of the field cultivated with other crops, and a few trees on parts of it, consequently the services of two men, with scythes, were needed to clear away at the ends, and to pick up the fragments. The work went successfully on, and was completed before night. The men sweat profusely, and so did the cattle. The best way you can fix it, mowing is hard work.

On a field near by, one of Russell's one-horse machines was put in operation the same day. It was new, and operated so little to the satisfaction of the proprietor, that he made up his mind to return it. Another gentleman, who successfully operated one of Ketchum's machines the last season, put it in motion the same day,—but had not proceeded far before it gave out by breaking two of the cogs in the small wheel, rendering city repairs necessary. Thus endeth the first lesson of mowing by machinery in the *natural way*. We have seen accounts of holiday experiments at West Chester, at Dedham, at Hadley, at Springfield, &c.,—all of which are well enough in their place—but what we want to know is, are the machines so constructed, that *real farmers* can find it for their advantage to purchase them and do the work upon their farms? That they can be made so as to cut and spread the grass perfectly where there are no obstacles in the way, has often been demonstrated, but what kind of machine will do this best, remains to be proved. We hope the experiment now going on, will ere long do away with all doubts in the matter. One of the greatest difficulties in the way of just determination is, the want of good fidelity in the structure of machines. When the *cheapening process* begins to be introduced, then the *reliable character* correspondingly disappears. *.

July 11, 1855.

For the New England Farmer.

HIGHWAY WORK.

In Concord, Mass., the highway tax is paid to the collector, as are other taxes. Formerly it was the custom to have the taxes worked out, or *stood* out, as some said, and many did.

By the present system, the person who has charge of the roads in a certain district may commence his repairs on the highways as soon as the frost is out of the ground, and cart his gravel so that it will settle immediately, and make a fine road at once. When A, B, and C, had to be called upon, the *book* must be first prepared, so that the surveyor could tell what taxes were due. This generally came along in midsummer, when the roads were as dry as meal, and the less done on them the better.

It seems as if all could see the great economy of the present arrangement. The intelligent surveyor hires his two good men, takes team enough and the right tools, and works when and where it is needed. Before, we used to have at times a great party out. The roads would be plowed up at the sides, and then men strung along to shovel the rich loam or sand into the ruts. The traveller dreaded to come upon such a piece of mended (!) ways. It was a sore spot for a long time.

It was a fortunate year for our district when my neighbor Goodman was surveyor. We had the roads in trim that year, let me tell you. He commenced in March. He opened the water-courses, and drained the deep ruts of the floods of standing water which helped the wheels to wear down continually deeper. He then carted coarse gravel, and filled the ruts with shovels from tilted carts with great dispatch. The gravel stuck in the wet ruts, and soon became firm as the everlasting hills.

There is gravel enough in our district for all the roads in the United States. It is a little harder filling it than the yellow dirt beside the road, but Goodman said nothing but the best of gravel should be spread on the road, if he went half a mile for it. Nobody ever before discovered that several high ridges in the very roads themselves were excellent gravel, and could be removed with a two-fold advantage.

Mr. Brown, nothing disturbs my spine and temper more than to go jolting over loose cobblestones in the road. They ought to be kept raked out. Public sentiment should demand it. I remember that dry summer how vigilantly Goodman went over the roads again and again, with a stout garden rake, and cleared out the loose stones. It was a small job, and brought great comfort to all. I thank him here for his consideration.

Is it not safe to judge of the intelligence and prosperity of a community by the roads they travel? I think so, and go in for elevating the standard in our good town. W. D. B.

Concord, N. H., July, 1855.

WOOD LAND.

Fifteen acres of wood and timber land will furnish a farmer his ordinary timber and wood for two fires. *Ten* cords of wood suffice for any man to keep two fires the year round, provided he has tight rooms and good stoves. We have kept two fires, since the first of November, in two large rooms, and have not yet burned three cords of wood, and we can assure you that we like a good comfortable fire. The farmer should commence on one side of his lot, and cut the wood clean as he goes. In this manner the young shoots come up alike, as they receive the sun alike. Now say there are thirty cords of wood to an acre; if he cuts ten cords of wood a year, it will take him three years to cut off the wood of a single acre, and it will take him forty-five years to cut the wood off from his lot of fifteen acres. At the end of forty-five years, he may go back to the first acre he cut, and cut thirty cords to the acre. On our ordinary upland, wood will grow to thirty cords to the acre in thirty years.

Thirty-four years since, we recollect of assisting in clearing fourteen acres of wood land, and getting the same into winter rye. After the crop of winter rye was taken, it was pastured for a year or two, and then suffered to grow up. The growth was white oak, yellow oak, red oak, chestnut and maple. Seven years since, that *same rye field* was cut over, and there was not a single acre of it but produced thirty cords to the acre! And this in twenty-seven years!—*Anonymous.*

For the New England Farmer

TO OWNERS OF OAK AND PINE SHRUBS.

Editors of the Farmer:—One word of suggestion, if you please, to the owners of the small patches of oak, walnut and pine shrubs, which are seen so frequently on the borders of Massachusetts villages, on the plains, and the declivities of the hills. These objects, which now strike the eye so disagreeably, however small and uncouth, may be made the most attractive feature of the scenery.

In proof of this, let me give you my own experience. I owned, four years since, within a short distance from this village, about six acres of the most unsightly land in the neighborhood, a mass of rocks and stumps, shrub oaks, shrub pines and shrub walnuts. By trimming away in the beginning all the shrubs except one upright shoot, and digging all the old stumps away, I have a young grove to beautify rather than de-face the surrounding lands, and to afford a pleasant retreat for an hour from dust and fatigue. I have seen larger and smaller patches of the same description of land, and I longed to say to the owners of them that they are thoughtlessly depriving themselves and their neighbors of one of the richest enjoyments of life, and the country of its least expensive and most desirable ornament.

No one will require to be shown the comparative cheapness or attractiveness of such a grove over one where the trees are transplanted; and thanks to your paper, and such as yours, no one will ask, Of what use is the fitting up of retreats for poets or moon-struck gazers at bewitching nature, to the hardy tillers of a soil which yields a meagre return, when it receives every moment of time and every effort of skill? Objections of this kind do not now require to be answered, if ever made, and attention is directed, by all classes, to that which beautifies and adorns, as well as to that which plucks from nature the means of subsistence.

Yours truly, OLIVER N. BACON.
Natick, July 7, 1855.

For the New England Farmer.

"SEVENTEEN YEAR LOCUSTS."

MR. EDITOR:—In the *Providence Journal*, of the fore part of last month, is an article with the above caption, in which the writer doubts that there are any "seventeen year locusts." The *Journal* says: "The lovers of the marvellous may not thank us for destroying a venerable illusion, but truth compels us to state that, according to the best etymological authority, no such peculiar insect as the "seventeen year locust" exists. Locusts are found in more or less abundance every year, in different parts of the country; but the idea that there is a variety or species, which appear at regular intervals of seventeen years, is unsustained by facts."

Now, Mr. Editor, will you allow me to state what "*facts*" in the case I happen to possess. I was born on the 18th of January, 1790, and in 1802 there appeared, in a certain wood-lot, about a mile and a half from where I then lived, and do now, what were called the *seventeen year locusts*. I heard it talked about, a year or two before they appeared, that the year 1802 was to be the *locust year*. Well, June came, and also, about the tenth of the month, the looked-for locusts, in great numbers. In the midst of their greatest display and profusion, we could plainly hear them sing, in a calm forenoon, although a mile and a half distant, in a straight line. I recollect going to see them, accompanied by my father, and carrying a basket and bringing home some two quarts of them; most of them we let go into the woods, near my father's house, and, in just seventeen years after, some few appeared in the said woods where we had let them go, none having been seen or heard there before, as I was informed.

In the woods first alluded to, where they appeared in 1802, they also appeared in 1819, just seventeen years after, but not quite so numerous as they were in the former year. They were, however, pretty numerous, and we could hear them sing the like distance that we did before. There were a very few the year before and the year after those dates, as though they made a *mistake* of one year in their calculation, but not one was seen in any other year.

In 1836, seventeen years after the last date, they were also seen in the same place, but they appeared less plenty, as though they were running out and becoming extinct. The last year of their appearing was in 1853, and, as I forgot to pay any attention to it in that year, I do not know whether they appeared or not. There was a piece of wood land in Easton, near Colonel Shepherd Leach's Iron Foundry, where they appeared in the above years.

The fact that these locusts appear in one part and another of the country, in years differing from the above dates, is no argument that they do appear oftener than seventeen years in those various places, as all accounts agree that they appear every seventeen years in those various places. It is my impression that this subject has received ample investigation by a person qualified for the task, and who, on the eve of publishing a book upon the subject, solicited information from all parts of the country on the subject. I have not seen the book, and have forgot the name of the author or his place of residence, but am inclined to think that he lived in Philadelphia. Can you inform me about such a book?

Most respectfully yours, ISAAC STEARNS.
Mansfield, Mass., July 4.

P. S.—Since writing the above, I have looked into the "Treatise on Insects," by T. W. HARRIS, M. D., published in 1842, by order of the Legislature of Massachusetts, and there, on page 178, find his description of this seventeen year locust, *Cicada Septemdecim*, to which the reader is referred. They were first described as appearing in Plymouth, in 1633. The tenth time of their appearing from that date, would bring it down to the year 1803; but it appears that Mr. Harris, in his book above alluded to, states that they appeared in Plymouth, Sandwich and Falmouth, in the year 1804, instead of 1803, if the exact period of seventeen years was allotted them. Mr. Harris says: "Circumstances may occasionally retard or accelerate their progress to maturity; but the usual interval is certainly seventeen years, according to the observations and testimony of many persons of undoubted veracity."

On page 181 of Mr. Harris' Treatise, it appears that they appeared in Sandwich in 1787, 1804, 1821, and, therefore, this present year, 1855, is locust year there. Have you, Mr. Editor, some correspondent in Sandwich who will give an account of this matter? Also, whether they did not appear in the year 1838? I. S.

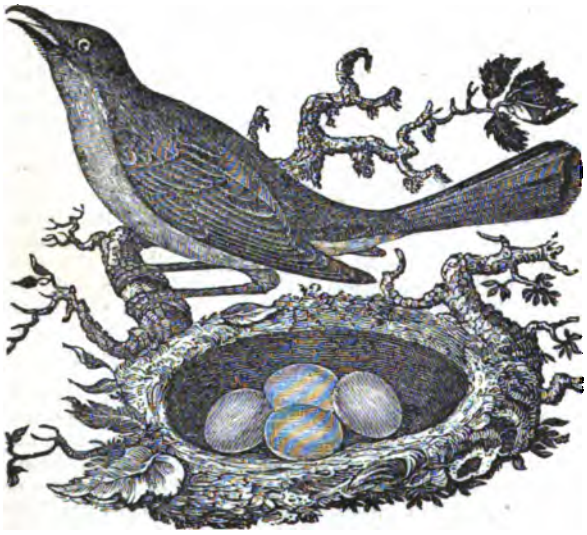
REMARKS.—We have no knowledge of a work being in preparation on the subject discussed above. Will some of our Sandwich friends gratify us by giving a little attention to this article?

☞ If all the nourishment for plants came from the soil, the soil of newly cleared land would be no more fertile than old land—but drawing much of their nourishment from the atmosphere, and decomposition taking place on the soil, the plant not only returns all it gets from the soil, but also the fertilizing ammonia and carbon it receives from the atmosphere.

THE CAT BIRD.

It is altogether too common among our people to complain of the hardness and poverty of the soil, of the rigor of the climate, shortness of the spring and east winds. Another class, who are tarry-at-home travellers, and who sit slippered and cushioned in easy chairs, and read of Italian skies and tropical birds, declare that no brilliant sunsets adorn our western skies, and that we have no birds of beautiful plumage or of exquisite song. The Bob-o-link is but a vulgar grub-catcher, and the Baltimore Oriole, or Golden Robin, but an arrant cherry-stealer, and fit only to be shot by roving boys.

These remarks were suggested by observing a rare bird upon one of our cherry trees on the morning of the eighth of July. He was nearly the size of the Golden Robin, bill robust, like the Buntings or Grosbeaks, wings jet black, and the breast and back a rich carmine. The color of the bill and shape of the tail we could not see sufficiently to describe.



On reference to Wilson's Ornithology, we are convinced that this beautiful bird is the *Scarlet Tanager*, and the first we have ever seen, though we are told by the neighbors that he is occasionally seen in the woods in this vicinity. Wilson says, "With the shy, unsocial, and suspicious habits of his gaudy fraternity, he takes up his abode in the deepest recess of the forest, where timidly flitting from observation, he darts from tree to tree like a flashing meteor. A gaudy sylph, conscious of his brilliancy and the exposure to which it subjects him, he seems to avoid remark, and is only solicitous to be with his humble mate, and hid from all besides. He therefore rarely approaches the habitations of men, unless, perhaps, the skirts of the orchard, where he sometimes, however, builds his nest, and takes a taste of the early and inviting, though forbidden cherries."

Seeing this beautiful and familiar bird, and speaking of singing birds, leads us very naturally to another of our accomplished singers, the lively and imitative Cat Bird, second only to the Mocking Bird himself. For the benefit of the grumblers, those to whom all is barren and unlovely in our climate and skies, forests and fields, we give Wilson's graphic and just account of the Cat Bird. The engraving is a capital illustration.

This quaint and familiar songster passes the winter in the Southern extremities of the United States and along the coast of Mexico, from whence, as early as February, they arrive in Georgia. About the middle of April they are just seen in Pennsylvania, and at length leisurely approach this part of New England, by the close of the first or beginning of the second week in May.

The Cat Bird often tunes his cheerful song before the break of day, hopping from bush to bush, with great agility, after his insect prey, while yet scarcely distinguishable amidst the dusky shadows of the dawn. The notes of different individuals vary considerably, so that sometimes his song, in sweetness and compass, is scarcely at all inferior to that of the Ferruginous Thrush. A quaintness, however, prevails in all his efforts, and his song is frequently made up of short and blended imitations of other birds, given, however, with great emphasis, melody, and variety of tone; and like the Nightingale, invading the hours of repose in the late twilight of a summer's evening.

When scarce another note is heard, but the hum of the drowsy beetle, his music attains its full effect, and often rises and falls with all the swell and studied cadence of finished harmony. During the heat of the day, or late in the morning, the variety of the song declines, or he pursues his employment in silence and retirement.

One of the most remarkable propensities of the Cat Bird, and to which it owes its name, is the unpleasant, loud, and grating cat-like mew, which it often utters, on being approached or offended. As the irritation increases, this note becomes more hoarse, reiterated and vehement; and sometimes this petulance and anger are carried so far, as to persecute every intruder who approaches the premises.

This common and abundant species begins to construct its nest some time in the month of May. The situation in which he delights to dwell, is commonly a dark thicket in the woods, or close bush in some recluse part of the garden, at the distance of five to ten feet from the ground, according to the convenience of the situation. The materials are coarse but substantial; the external part is commonly made of small interlaced twigs, old grass, and dry leaves; to these succeed thin strips of bark often of the red cedar, somewhat agglutinated. The inside is lined and bedded with black root-fibres of ferns; other accidental materials sometimes make a fantastic part of the fabric. One has been known to carry away an edging of lace which was missed, and at length again recovered after the rearing of the brood, whose dainty bed it assisted to form. I have frequently found in the external coat of the nest the cast-off skins of *snakes*, more rarely bits of newspapers, wood shavings, strings and bass mat strips. The eggs are four or five, of a bright and deep emerald green, and without spots. The food of the Cat Bird is insects and worms, particularly beetles, and various garden fruits; feeding its young often on cherries and various kinds of berries. Sometimes they are observed to attack snakes when they approach the vicinity of their brood, and commonly succeed in driving off the enemy; when bitten, however, by the poisonous kinds, it it is probable as related, that they may act in such a manner as to appear laboring under the influence of fascination.

TOADS.

A correspondent of the *Cambridge Chronicle* puts in a plea for toads, and justifies his partiality by the following, which we extract from his communication:

"We have in our garden a small nursery of plum trees, which have been nearly destroyed by the canker worms. Last season we commenced shaking them off. One day we observed many toads about these trees, that on our approach became frightened and retreated in great haste to their retreats in the neighboring bushes. Soon finding that they were not pursued, they commenced hopping back, and caught with avidity each canker worm, as it descended on its tiny thread. We counted at one time thirty immediately round our feet. Day after day we fed them with their favorite food, and they became so tame as to follow us, watch our hand, and take the worm from our fingers."

This is new to us, though it may not be to many of our readers; but whatever taste the toad may have for canker worms, we are quite sure that it does a world of good in a garden, by destroying earth worms, of which it eats large numbers. We once tried to surfeit a toad with earth worms, but our patience was appeased, and we have always held that to destroy one of those disgusting looking reptiles was doing one's grounds a deal of injury. There is no charge brought against the toad but its disagreeable appearance, and it might well quote the old saw to those who despise it without seeking to learn its real value —looks are nothing, behavior is all.

THE GOOSE.

The goose, with the duck and swan, form a distinct family of the feathered aquatic tribes, (*Anatidæ*,) and is distinguished by web feet and a flat bill. The domestic goose is derived from the native wild goose, which still frequents in vast numbers the more solitary inland lakes and streams of the American continent, and which is known to ornithologists and naturalists by the appellation of the fen or stubble goose. In its state of domestication it still retains its aquatic character and habits, plunging eagerly into water, and, when permitted, living mostly on its surface. In favorable localities, where there are marshes or fens abounding in pools, the rearing of geese is very profitable, as they will in such situations obtain their own living.

The goose is remarkably hardy, subject to few diseases, and lives to a great age. It has been ascertained that the female goose, if well tended, will generally lay from seventy-five to one hundred eggs yearly, sometimes one hundred and twenty-five; but this depends very much upon the care and attention bestowed upon them. These eggs, if set under hens of large size, capable of covering five or six eggs each, nearly the whole number, may, with the assistance of the goose, be hatched. The best feed for goslings during the four or five days immediately after hatching, is barley or oat meal mixed with milk. Water and a very little sweetening, may be used as a substitute, when milk cannot be obtained, or when from its scarcity it is too expensive. In about one week after their enlargement from the eggs they will commence growing; they should then be permitted to go out, but not till the day has become somewhat advanced, and should be taken up before sunset. In fattening geese, Indian corn meal, and chopped vegetables, such as potatoes, beets, (boiled) cabbages and turnips, are generally given. Charcoal, in a pulverized state, is also excellent for fattening, and, in some instances, these fowls have been fed exclusively with it for weeks, and are said to have taken on fat more rapidly than when fed on any other description of food. Its value for this purpose was first discovered accidentally; a family in New York, having left the city on a protracted absence of several weeks, without thinking of several geese which had been incarcerated for some purpose in a loft where there was nothing eatable but a quantity of charcoal. On returning, they were disappointed in finding their *aquatic* friends of the loft in most admirable health and condition, and the charcoal nearly exhausted. They had partaken of nothing else during the long period of their confinement, and the fact being circulated and published in the journals of the day, gave rise to the practice of supplying these fowls with the article while undergoing the fattening process, and which has now become common and almost universal in every part of the country where geese are raised and fattened for the market. Not only the goose, but domestic fowls generally, are greatly benefited by it.

For the New England Farmer.

POISON OF CHERRY LEAVES.

Mr. Editor :—Farmers are generally aware, I suppose, of the poisonous effects of the wilted leaves of the wild cherry, which are said to be, if eaten in any quantity, invariably fatal to cattle—or, at least, no remedy effectually neutralizing those effects is known among us here. But has it heretofore been known that there is danger, also, from the wilted leaves of the English, or cultivated cherry? A piece of experience I have just had, and which has occasioned me no little disappointment, looks that way certainly.

I was raising, this season, a very fine, promising heifer calf, nine weeks old last Monday, half Alderney and three-eighths Ayrshire, every mark upon which was good. For convenience of shade and to nibble the grass, unsuspicious of danger, I kept it tethered for some weeks, during the day, under some white-leaved cherry trees, in the front yard, where it became a cosset and playmate with the children, and, until the evening of the 4th, gave every manifestation of high vigor, growing rapidly, and being full of fun and frolic. The trees, meanwhile, had not been ascended for the purpose of picking the cherries. A week or more ago, however, the children began to get up into the trees after the fruit, and, in doing so, often broke off and dropped on the ground the little spurs on which clusters of cherries had grown. These spurs, with three or four leaves on each of them, for some days have been lying about on the grass in several places; but I never observed the calf eating them, though I saw it, once or twice, strip off and chew little pieces of bark from the boles of the trees. Meantime, I was teaching it to eat by putting pieces of carrot, sliced thin, into its mouth, and by giving it, occasionally, bits of young fodder-corn, (Stowell's evergreen.) But one symptom, of which, no doubt, I ought to have thought more, had occurred. For several days the calf had been noticed very costive, straining and showing considerable uneasiness whenever it had occasion to drop, its droppings being more like a sheep's than those of a calf. Still, no suspicion of the cause had presented itself to my mind, and I felt no alarm.

On the evening of the 4th, as has been stated, indications were observed of an alarming nature. Then, for the first time, on being led to the barn, the calf manifested no disposition to play, but moved sluggishly. That evening it sucked a very little, leaving most of the milk in the bag. The next morning, though manifesting some wish to get to the cow, it did not suck at all, but it poked its head about its dam's legs, and repeatedly put its mouth to the teats. Symptoms of partial blindness were also indicated. Advice was called, an injection of warm water and castile soap given, and castor-oil administered; but the effect was slight; only a few hardened fæces were dropped, and the animal continued to grow worse. On the evening of the 5th, additional advice from another more experienced person was sought; and he, observing a certain frothing about the mouth and gritting of the teeth, pronounced the creature poisoned; and, learning where I had kept the calf, gave me the first hint I had received of the dangerous nature to cattle of cherry leaves. He administered, that evening, as much as he could get down of half a pint of lamp oil, and again about the same quantity the next morning, (the 6th.) No effect appearing, in about an hour's time I gave another injection of warm water and soap, which produced a few hardened droppings, but no effectual relief. It may be well enough to state that I had a little practice of something like "*motorpathy*" in this case, as, finding the intestinal action sluggish, if not entirely destroyed, I hoped to restore it, and, at the same time, aid the operation of the physic, by gently working the abdomen with my hands—an operation which, in cholic, in the human species, is often highly efficacious. The difficulty, however, had got too far to be removed, though I think some effect in the way I intended was produced. Nature was now nearly exhausted. In a short time the poor creature began to tremble violently, then to move round and round, as if tipsy and crazy, moaning piteously, knocking its head the while against any obstacle that came in its way, and finally dropped down and expired. After death, the body was not opened, as I could find no one willing to do it. It soon began to bloat, and, as soon as could be conveniently, it was buried.

Now, Mr. Editor, does it appear clear to you, from the above statement, that the wilted cherry leaves, which the calf probably ate, were the cause of its death? Or was it something else, as others still assert? I have heard of the death of two or three calves in this town, this spring, in a manner equally sudden, and, if any thing, more inexplicable. Does wind, as some say, ever occasion death in calves? Respectfully yours,

Bolton, July 8, 1855. R. S. E.

Remarks.—From the above statement, we have no doubt, whatever, that eating the cherry leaves was the cause of the sickness and death of your favorite calf. Similar cases have been occasionally brought to our notice through many past years. This clear narrative of facts, by R. S. E., ought to operate as a caution to all, not to let their cattle have access to cherry leaves.

For the New England Farmer.

THE BUTTONWOOD TREES.

We have noticed in this section, this season, that the buttonwood, or buttonball trees, are more or less diseased. They began to leave out as usual, and after the leaves were about half out they began to dry up, so that some three-quarters of the leaves are dead. A few leaves on the top and outside branches are yet fresh. Trees of all sizes, from three inches to a foot and a half in diameter at the bole, are alike affected here. Occasionally we see a small tree that has escaped as yet. Some fourteen or fifteen years ago, these trees were affected we think more or less through the country. Many of them died out entirely, while others recruited again the next season. I think some nine or ten years ago, also, they were affected in this section, in the same way. Whether the disease this season appears in other sections, we know not as yet.

Yours, &c., L. Durand.

June 21, 1855.

GAS WATER FOR MANURE.

The lime used in purifying gas, and which is known by the appellation of "foul lime," is now extensively used as a fertilizing agent, and with excellent success, on most field crops. The gas water, another waste or refuse article produced in the process of manufacturing gas, is also an excellent fertilizer, but should be used with great caution. It is an ammoniacal liquor, and if applied to a surface in grass, will apparently scorch and burn up the herbage, although the next year the spot on which it was applied will be distinguished by great luxuriance and vigor of development. The refuse lime, through which the gas is made to pass in order to purify it from the sulphurated hydrogen, becomes impregnated with this article, and assumes in consequence, to a certain extent, the characteristics of hydro-sulphuret of lime. It contains at first, in a state of combination with it, a certain portion of ammonia, but as the carbonic acid gas of the lime combines with this article, it is converted into carbonate of ammonia, or volatile alkali. Ultimately, however, exposure deprives it of its ammonia, and none of it will be found in the lime. Foul, or refuse lime, is very repugnant to most insects, and to some is almost instantaneously fatal. It may be applied to vegetation in the same manner as gypsum, or used as an ingredient in compost. In either way it will prove a very efficient and salutary fertilizer.

ANALYSES.

The following table exhibiting the various constituents of several important products of the soil may not be uninteresting :—

	Wheat Straw.	*Barley Straw.*	*Oat Straw*
Potash	½	3½	15
Soda	¼	1	15
Lime	7	10½	2½
Magnesia	1	1½	½
Alumina	2¼	3	¼
Oxide of iron	23½	½	½
Silica or flint	81	73½	80
Sulphuric acid	1	2	1½
Phosphoric acid	5	3	¼
Chlorine	1	1½	¼
Total	100	100	100

Corn contains, potassa, 20.87; phosphoric acid, 18.80; lime, 9.72; magnesia, 5.76 per cent. Grass abstracts from the soil no potash. It contains, carbon, 45 per cent.; hydrogen, 5; oxygen, 38; nitrogen, 1½, and ashes, 9 per cent. There are few vegetables which contain, probably, so large an amount of potash as the pea—i. e., the haulm or vine. It has been ascertained by accurate analysis, that the quantity of this constituent is 53 per cent. The pea, therefore, where the haulm is rigidly economized and directly returned to the soil, must be contemplated in the light of an ameliorating crop, and one, the systematic cultivation of which would add millions to our agricultural wealth, and prove ultimately a most potent auxiliary in the resuscitation of the soil.

EXTRACTS AND REPLIES.

GUANO—OLD BONES.

I have read much in the *Farmer* about guano. many of the farmers think that it does not pay, but I think it pays well on my farm. I applied 550 lbs. on an acre and a half of worn-out (light) land, without any other dressing, and planted it with corn. It was injured very much by the drought, but I harvested 68 bushels of good ears of corn, and 20 bushels of ears of small corn, which was worth at least half-price of good corn, making 88 bushels of ears. Allow two bushels for shrinkage, and two bushels of ears to make a bushel of shell corn, and I have 35 bushels of shell corn, which is worth now at least $1,25 per bushel; making $43,75 worth of corn. I applied it to other lands for corn, potatoes, oats and wheat, with about the same result.

I read in the *Farmer* a polite invitation for farmers to experiment with old bones and horse manure. I will give my experiment, and should like to here the result of others through your columns. Last spring I made a layer of horse manure about ten inches deep, a layer of bones, and a layer of wood-ashes sufficient to cover the bones, and after the heap was finished, I covered it over well with swamp mud, and let it lay about six weeks, when it got so hot I thought it best to move it over. I found the bones about two-thirds dissolved; I covered it again with the mud that had been taken off, and let it lay six weeks longer, and shovelled it over again; I found that the bones had not dissolved any since they were shovelled over the first time. Whether it was owing to moving them, or to the dry weather, I cannot tell. B. W. Gay.

New London, 1855.

COAL ASHES—CHIP MANURE—LIME.

Messrs. Editors :—I take much *interest* in farming. In fact, I may truly say I *love* it; but I know but a little about it, and that little more in theory than in practice. My *business* is merchandizing; still, if every thing should go to my liking, I may, at some time in the future, know more of it practically than at present. Occasionally, now, I steal away from other duties, and seize the hoe. This is my pleasure, my recreation, my "hobby." It is said that all men have their "hobbies," and mine, perhaps, is as innocent as any that can be selected.

Being a "know-*nothing*," so far as farming is concerned, allow me to ask for some information, that I may know *something*.

Are coal ashes of any value to apply to land or vegetation? If so, what are the most advantageous modes of application? (*a*.)

Which is the cheapest and most advantageous fertilizer for sandy land, house ashes that are good, at 15 cents a bushel, or a good load of common manure, at $1,25 per load, both delivered in the field? (*b.*)

Which impoverish the land the most, potatoes or corn? (*c.*)

Is chip manure, mixed with barn-yard manure, a good fertilizer? (*d.*)

What is the relative strength of chip manure, compared with barn-yard manure? Or, in other words, will one load of the latter produce the same results as four of the former? (*e.*)

Would you recommend the use of lime to sandy and much worn soil? And if so, how many bushels to the acre? At 25 cents per bushel for good stone lime, would it be more advantageous than a good load of manure at $1,25, both delivered in the field? (*f.*)

Is good muck, without being carted into the barn-yard, but simply spread on plowed, sandy and worn land, in the fall, *valuable?* (*g.*)

By giving me information on these points, you will much oblige a reader and Inquirer.

Burlington, Vt., June 9, 1855.

Remarks.—We should be glad to reply to the queries of our correspondent at length, but an affection of the eyes, probably occasioned by reading in the cars, and the long-continued use of them by lamp-light, has prevented us from reading or writing much for several weeks.

(*a.*) Coal ashes have been found valuable in the garden and on the field crops. We have published several notices of their highly beneficial results. They should be sifted clear from all coals and cinders.

(*b.*) At $1,25 per load, 20 loads of manure, at 34 bushels each, would cost $25,00. At 15 cents a bushel, 166⅔ bushels of ashes would cost $25. Now if the sandy land has, within a year or two, received a dressing of barn manure, we should greatly prefer the ashes; if it has not, we should prefer the manure. No definite rule can be laid down, because circumstances vary so much.

(*c.*) It is a question not well settled. We think corn does.

(*d.*) Good, if the chips are well rotted, but excellent, when air-slaked lime is added, to dig in about fruit trees.

(*e.*) Cannot answer it. You must experiment, when you have opportunity, and let us know the result.

(*f.*) As a general thing, the manure is the most valuable. If the land is acid, and as an occasional use, the lime would be best.

(*g.*) It would be very valuable if it had been dug out a year or two, and overhauled two or three times.

PAY THE CHILDREN

Six cents a quart for the plums that daily fall from the trees; burn them, and destroy the curculio maggot deposited in every one of them.

Watch the falling apples, nearly half grown; out of a bushel you can scarcely find one free from the curculio worm. Could these be gathered up by children or pigs, (I mean no invidious classification,) before the maggot goes into the ground, his species would be lessened.

"A jewel of gold in a swine's snout," or some baser metal, would be required to protect the land against his rooting propensities, but would it not pay? It is simply putting *rings* into the *nose* instead of the ears. P.

July 5, 1855.

THE CUT WORM.

A subscriber from Lowell inquires in your last paper, "what is the best preventive for the grub or cut worm, upon flower and other roots." I was formerly much annoyed by cut worms destroying plants I had transplanted, particularly the tomato and cabbage; in some cases a large portion of them would be bitten off at the surface of the ground. Some years since, I tried the experiment of wrapping around the stem of each plant, before transplanting, a piece of soft paper, extending from a short distance above the root, to the first leaf, and found it a perfect remedy. It is done very quick, and the paper lasts until the plant is large enough to take care of itself.

Cambridge, July 11, 1855. O.

REMEDY FOR GRUB WORMS.

Mr. Editor:—"Verdant Farmer" wishes to learn through the columns of your invaluable paper, whether there is a remedy for the grubs, which he says are destroying whole fields of corn, pumpkins, and young hops in his vicinity. An instance once came under my observation which I will relate, as it proved an effectual remedy.

A neighbor once had a field of corn that was nearly destroyed by the grubs, and by way of experiment, he applied plaster thoroughly saturated with spirits of turpentine; the result was, the corn resumed its healthy color, (one shade darker than the original) grew rapidly, eared well, and was to all intents and purposes a good field of corn.

The plaster should be allowed to dry after having been saturated, and care should also be used, that it does not come in immediate contact with the corn, or it may prove too strong.

The above was the white grub that eats off the roots, and not the darker one, though I think it would answer for both. C. F. S.

New Canaan, Conn., July 3, 1855.

VETCHES.

Mr. Bethel, of Queeche, Vt., states that vetches should be cultivated as we cultivate peas when sown broadcast; that a few oats sown with them will prevent lodging, and that they remain green for a long time and make excellent fodder.

REMEDY FOR APPLE-BORER—TROUT AND GOLD-FISH.

Friend Brown:—My object in addressing you at this time, is to inform your numerous subscribers and readers of the *Farmer*, of a new remedy for the grub or apple tree borer. Being near the sea-shore one day visiting a friend, I noticed the thrifty appearance of his young apple trees, and upon inquiring the cause, he informed me that he mulched them with rock weed, and that the borer never troubled them. Having just set out an orchard, I concluded to try the remedy; I have tried it for the last three years, and have not found a borer around one of them during the time, while my neighbors that do not use the rock weed, are losing their trees by their ravages. The mode of applying it is to dig the earth from around the collar of the tree, and then for a tree four or five years old, use from a peck to a half bushel of the weed, laying it upon the top of the roots immediately around the trunk of the tree. For larger-sized trees use about the same proportion. I would state that my trees are set out upon greensward, and as a matter of course, the borer would be more apt to trouble them than if cultivated among. I have never known a tree attacked by the borer, where the rock-weed has been applied.

I have an artificial pond that I wish to stock with fish; will you please inform me if trout and gold-fish will live peaceably together. I have already trout in it, and wish to add gold-fish, if they will do well together.

Yours respectfully,

Yarmouth, Me., *June* 23, 1855. O. A. H.

Remarks.—Will some one who has had experience reply to the queries about the fish?

DITCHING.

Mr. Editor:—Being in possession of a small lot of poor land situate in western Massachusetts, consisting of stony hill and swampy intervale, I would inquire through the medium of your valuable paper the method of constructing drains of small stone.

What sized stone, how many to the rod, how deep, wide, and far apart the drains, and how much fall to the rod?

Is it indispensably necessary to use drain tile?

How long will they last if well laid?

What is the greatest objection to this kind of drain? A Tiller of Stony Soil.

June 11, 1855.

Remarks.—It would require an essay on the subject to answer the above questions. They are pertinent, however, and "A Tiller of Stony Soil" ought to understand the whole matter, if he intends to continue its cultivation. Being on a stony soil, he has plenty of the best material for the purpose of drainage. We will do better than to answer his questions with our acccustomed brevity by advising him to purchase Munn's *Practical Land Drainer*, in which he will find the most approved system of drainage, and the scientific principles on which they depend, and are explained, and their comparative merits discussed, with directions for making drains, and the materials of which they may be constructed.

ACID FROM OAK TIMBER.

We are not able to give S. W. S. any information whether the acid from oak timber where staves are steamed, is good for anything or not.

INSECTS ON APPLE TREES.

I have quite a number of young apple trees, and have noticed numerous insects on them; they collect on the ends of the twigs in numbers, are about the size and shape of a louse, and of a green color, and the small ants or pismires are thick around them. What I wish to know is, whether they are destructive or not? If so, by what means can they be destroyed?

Exeter, N. H., 1855. J. D.

Remarks.—Plant lice, or *Aphides*, are somewhat destructive. They may be destroyed, in some measure, by an application of whale oil soap, through a syringe, or by gently tapping the limbs of valuable plants and shaking them into bowls of water. The ants are among the aphides to collect a sweet, sticky fluid which they eject. See Harris on "*Insects Injurious to Vegetation*," for a full and exceedingly interesting account, pages 205 to 214.

REMEDY FOR CHAFES AND GALLS ON CATTLE AND HORSES.

One ounce of blue vitriol (sulphate of zinc) dissolved in four quarts of water. When horses are chafed by the saddle, or oxen are galled by the yoke, bathe the wounded parts freely several times a day, and they will rapidly heal under its use. In these times, when it is difficult to get rum to wash animals that are chafed, it is well for farmers and stable-keepers to keep a jug of the above remedy ready prepared for use. It is much better than rum, which is so generally used for the same purpose. R.

Concord.

For the New England Farmer.

HAY CAPS.

Mr. Editor:—*Sir*,—Permit me through your respectable agricultural journal to advise my brother farmers to supply themselves with a most useful and economical article of covers to protect their hay against rain and heavy dews, which I have fully tested for the last five years to my entire satisfaction. They should be made in the following manner, namely:

Stout unbleached cotton sheeting should be purchased (such as is made by the Lyman Mills Company at Holyoke) from 36 to 42 inches wide—the latter is the best—which should be cut into lengths of from 40 to 45 inches,—the latter is the most useful—a much larger size would be objectionable, as they would exclude the air from the hay cocks.

To make 40 of them (and no extensive farmer should have less than 100) would require a gallon of linseed oil, which should be simmered with 4 pounds of bees wax, and a quart of japan should be added after it is taken from the fire. When cold, the mixture should be about the thickness of lard in summer, if not, more oil or wax may be added. The cloths should then be "payed over," to use a sea expression, with the hand or a small piece of shingle, on one side only, and then dried in the sun. When they are dry, the females of the family will cheerfully sew into the corners a stone of the weight of about seven or eight ounces, which completes the affair.

No hemming is required, as the wax and oil will keep the edges sufficiently firm.

I don't think I am extravagant in saying that they will pay the cost in one season, and will last ten years, if taken good care of. Within the last week we have had one entire rainy day, when my neighbors' hay was thoroughly soaked, while mine was as safely covered as if it had been packed away in the barn. My manager thinks that one-third of the cost of some new covers just made, were paid for on that day.

Large covers, made in the same manner, to cover the whole of a load of hay, with heavier weights, of course, would be an admirable protection against sudden showers; but, as I have not often made hay at a distance from home, I have never required them.

Respectfully yours,

Edward Clarke.

Round Hill, Northampton, July 11, 1855.

CUTTING GRAIN.

Mr. Editor:—In harvesting grain of all kinds, I am convinced from my own observation and experience, that we do not commence early enough. Grain that stands until it is dead ripe—especially wheat—makes darker flour than that which is cut when in the milk, or about the time the kernels begin to glaze. Last year, in order satisfactorily to test the correctness of this position, I cut one-half of a piece of wheat just at the time the grain was beginning to harden, and allowed the remainder of the piece to stand till it had matured. The grain cut in the milk, was bound in small bundles, and stocked on grass lands, where it remained for a fortnight, being protected from rain and heavy dews, by caps, but exposed to the sun by removing them during the day-time, when the weather was clear and fair. Both parcels were threshed separately, and weighed, and the first cut was found to be in every respect superior to that cut last; the kernels were finer in the sample—more plump and farinaceous, the skin thinner and whiter, and the general appearance so different that, when placed beside the other, it did not look like the same variety of wheat.

A like experiment on oats resulted in a similar way; and I am confidently persuaded that early cutting will be found in every respect preferable to late cutting. Another, and by no means unimportant consideration, is the superiority of the straw for fodder. Grain straw that stands until it is perfectly or "dead ripe," contains but little nutriment; all the saccharine juices are abstracted, and little except the fibrous substance of the plant remains; but when it is cut early, and properly cured, there is nearly as much alimentary matter in it, as in hay. Oat straw is generally regarded—and with justice—as of much greater value for feeding purposes, than the straw of wheat, barley or rye. Early cutting, with reference to the harvesting of this grain, is therefore of more consequence, so far as the straw is concerned, than it is of either of the varieties. But in all cases, the practice possesses a decided advantage over the old method.

Any person who is at all skeptical on this point, can, with a very little difficulty, satisfy himself of its correctness; he has but to make the experiment. The straw of my wheat—that which was first cut—was all consumed by my cows, while that which was left till ripe, was rejected. —*Germantown Telegraph.*

For the New England Farmer.

WHO WOULD NOT BE A FARMER.

BY MYRA MYRTLE.

Who would not be a farmer, and till the grateful soil,
Which yields in golden harvests rich recompense for toil?
Who would not be a farmer, and work the precious mine
Which feeds the hungry nations, yields food for all mankind?

Who would not be a farmer, and walk his own domain,
Behold his cattle grazing, and his fields of waving grain;
List to the wild-birds' warblings, as they flit from tree to tree;
They the farmer's feathered minstrels, his their gushing melody.

Who would not be a farmer, live in a rural cot,
Inhale the balmy breezes, with healthful odors fraught;
Possess a gentle, virtuous wife, and little folks a few,
Take an *agricultural paper*, and *pay the printer*, too?

Somerset, July 5, 1855.

For the New England Farmer.

ABOUT TRAPPING WORMS.

Mr. Editor:—I perceive, by the *New England Farmer* of June 23d, that "C. Q." recommends the trapping of worms. I hardly know whether he intended to joke or not, for, after reading the article referred to, I thought I would try the experiment. After making the holes per direction, I tumbled a "fellow" (rather odd) into each hole, and, if the original experimentor, "C. Q." had been there, he would have wondered, for no sooner in, than, to show their smartness, they turned "head over heels" two or three times, then, by watching all of them, I saw they had suddenly disappeared. I began to think the paper is not to be relied on, for there were no birds near, nor did the sun draw them up, nor did starvation put an end to them. I rather think that "C. Q." must have been a grave-digger, and lying down to try the size of the grave he was digging, finds such a snug fit that he can't get out, and lying there "twenty-four hours," begins to think that a hot sun and starvation will kill any worm. This is reasoning in a practical manner, and there is a great deal of such reasoning in the farming journals of the day. All have some wonderful working plan, something no one else can follow but themselves. About the middle of June, I find the lumps of manure plowed in in the spring to be impregnated with almost a countless number of worms. Now, what is best to do with the manure? And what is best, and what can a farmer afford to buy instead of home-made manure? E.

Remarks.—If home-made manure is thoroughly worked over and made fine, there will be few lumps in which the worms may congregate.

The farmer, in our opinion, cannot afford to purchase any manure *instead* of the common barn manure, only under peculiar circumstances; such as where the land is difficult of access, or far from home, or where he has team and help sufficient to cultivate more land, but has not manure. In such cases, he will be quite likely to be remunerated if he uses guano, superphosphate, bone-dust, ashes, plaster, potash, or something else.

KETCHUM'S ONE-HORSE MOWER.

The liberal propositions of the Massachnsetts Society for the Promotion of Agriculture will do much towards settling the questions, whether the mowing machine is really to be a benefit to the farmer, and which is the best, among the number already presented to the public. We had seen but one kind in operation, Ketchum's, and that with results not altogether satisfactory.

Last week we took a one-horse machine into our fields, and on Friday set it in motion on an oblong strip containing about one acre and three-quarters. The machine was put together by a young man who did it for amusement. All the bearings were well oiled with pure sperm oil, and we mounted the seat, hoping that our friend Lincoln's strong testimonials in its favor would be verified in our own mind, but we must confess with many doubts.

But with a strong, noble horse, worth more than Richard's kingdom was to him, away we went, the jolly clattering of the cogs and knives arresting the attention of the neighbors, and soon populating the field with an interested group of observers.

In two hours, including the stops for the horse, and for explanations to by-standers, the piece was handsomely mowed. The grass was a thin red-top in some places, in others a pretty thick stand of red-top and herds-grass, and affording a fair trial for the machine. On the 17th, we used it on a hill-side where, probably, double the power was required that would be on level ground—but with equal success.

We have no means of speaking of the comparative merits between this and other machines, but these trials justify us in speaking favorably of this machine. It is susceptible, we think, of some improvements, which it will undoubtedly receive.

The horse was not worried any more than he was in plowing old ground ten inches deep, in the spring, with another horse by his side. We have no doubt but this mower will prove of great benefit to the farmer. Other trials will be made which we shall report, and shall mention also some of the difficulties usually encountered, and their remedies.

Atmospheric Air—when it enters the lungs, contains about two gallons of carbonic acid in every five thousand of air. When it escapes from the lungs, it contains two gallons in every one hundred. From this, we can see how much solid carbon is continually thrown from the system, and how much must necessarily be constantly supplied.

TRIAL OF MOWING MACHINES.

The rival Mowing Machines that have come into use within a few years, are being put to the test for the premiums of $600, offered by the State Agricultural Society, and $200 by the Essex County Society, for those that shall be able to perform the most and best work. Yesterday a trial was made in Salem. On account of the great crowds that have collected at other trials, no public notice was given, yet some two or three hundred persons were on the field. Six persons entered as competitors, with three separate patents, viz :—

Robert Brookhouse, Salem, Manny's Machine.
Horace Ware, Marblehead, " "
Richard P. Waters, Beverly, Ketchum's "
S. C. Pitman, Swampscot, " "
George B. Loring, Salem, Russell's "
S. A. Merrill, Salem, " "

The parties all have large farms, with extensive mowing grounds, where they proved them. Mr. Brookhouse has a farm of some 200 acres; Horace Ware is one of the first and best farmers in the county; R. P. Waters is owner of the Cherry Hill, formerly the White farm, and was the first to use the mowing machine in this county; Mr. Pitman is on the place of Col. Stetson, of the Astor House; Dr. Loring has the Pickman farm, where the trial was made yesterday, of 400 acres, 150 of it mowing grounds; and Mr. Merrill is from the celebrated Derby estate. The ground selected was a level piece of mowing, producing about two tons to the acre, and about a quarter of an acre was allotted to each. They completed the work in the order in which we have arranged the names, as follows :—The first in 20 minutes; 2d in 14; 3d in 20; 4th in 8½; 5th in 9; and 6th in 8½. The first was accidentally delayed several minutes; and the third had very spirited and somewhat unmanageable horses; and the second, who was next longest, may, upon the whole, have been as successful as any of them. At this trial they all had two horses; and with the same team and machine on Saturday last, Mr. Ware mowed 10 acres in little over seven hours.

We shall not attempt to describe the machines. They may all have defects that will be remedied. The most essential difference we noticed was that the cutters in Russell's patent acted more fully as shears, and would seem to cut easier and better. They all mowed as clean and close as could have been done by hand, and the poorest of them would be so great an improvement over the scythe, as to produce a perfect revolution in hay-making. The obvious advantages are, 1st, in the great saving of manual labor, one man being capable of performing as much work as a dozen mowers; 2d, it enables persons, by cutting their grass in less time, to make hay when it will be best, and not have it injured by delay; 3d, it can as well be cut after as when the dew is upon it, and the hay can be made in shorter time; and 4th, by the grass dropping where it stood, instead of being thrown into swath, it saves the spreading.—*Newburyport Herald.*

Breathing.—A healthy person takes in about a pint of air at a breath. He breathes a thousand times in an hour, and requires about fifty-seven hogsheads of air in twenty-four hours.

Professorship of Agriculture.—Dr. William Terrell, an eminent agriculturist, and one of the wealthiest and most public-spirited citizens of Georgia, died at his residence in Sparta, Hancock Co., in that State, on the morning of 4th of July. The deceased has especially entitled himself to the gratitude of Georgia and of posterity by the donation of twenty thousand dollars to Athens College, for the establishment of a Professorship of Agriculture. Called by his name, it will, for all time, be his monument.

LADIES' DEPARTMENT.

USEFULNESS.

Not unfrequently, have I heard women who were surrounded by all the advantages that outward wealth can give, say with sad and timid self-reproach, "I ought to be happy. It is my own fault that I am not. But, I know not how it is, I cannot get up an interest in anything." When I remind them that Richter said, "I have fire-proof perennial enjoyments, called employments," few have faith in such a cure for the inanity of life. But the only certain way to attain habitual content and cheerfulness, is by the active use of our faculties and feelings. Mrs. Somerville finds too much excitement and pleasure in her astronomical investigations to need the poor stimulus of extravagant expenditure, or gossipping about her neighbors. Yet the astronomer discharges all womanly duties with beautiful propriety. She takes nothing from her family. She merely gives to science those hours which many women in the same station waste in idleness and dissipation.

What can be more charming than the example of Mrs. Huber, devoting herself to the study of natural history, to assist her blind husband in his observations? Or of Mrs. Blake, making graceful drawings in her husband's studio, working off the impression of his plates and coloring them with her own hand? Compare a mere leader of ton with the noble German Countess, Julia Von Egloffstein, who dared to follow her genius for art, though all the prejudices of people in her own rank were strongly arrayed against it. Mrs. Jameson says, "When I have looked at the Countess Julia in her painting-room, surrounded by her drawings, models, casts—all the powers of her exuberant, enthusiastic mind, flowing free in their natural direction, I have at once felt pleasure, admiration and respect." The same writer says, "In general the conscious power of maintaining themselves, habits of application and manual industry in women, the application of our feminine superfluity of sensibility and imagination to a tangible result, have produced fine characters."

That woman is slowly making her way into freer life is evinced by the fact that, in a few highly cultivated countries, literature is no longer deemed a disparagement to woman, and even professed authorship does not involve loss of caste in society. Maria Edgeworth, Mary Howitt, Frederika Bremer, our own admirable and excellent Catharine Sedgwick, and many others widely known as writers, were placed in the genteel ranks of society by birth; but they are universally regarded with increased respect, because they have enlarged their bounds of usefulness, to strengthen and refresh thousands of minds.

Dorothea L. Dix, when she retired from school-teaching because the occupation disagreed with her health, had a competence that precluded the necessity of further exertion. "Now she has nothing to do but to be a lady and enjoy herself," said an acquaintance. But Miss Dix, though characterized by a most womanly sense of propriety, did not think it lady-like to be useless, or enjoyment to be indolent. "In a world where there is so much to be done," said she, "I felt strongly impressed that there must be something for me to do." Circumstances attracted her attention to the insane inmates of prisons and alms-houses; and for several years, she has been to them a missionary of mercy, soothing them by her gentle influence, guiding them by her counsel, and greatly ameliorating their condition, by earnest representations to selectmen and legislators. Her health has improved wonderfully under this continual activity of body, mind and heart.

Frederika Bremer, in her delightful book called "Home," tells of one of the unmarried daughters of a large family who evinced similar wisdom. She obtained from her father the sum that would have been her marriage portion, established a neat household for herself, and adopted two friendless orphan girls to educate.

Use is the highest law of our being, and it cannot be disobeyed with impunity. The more alive and earnest the soul is by nature, the more does its vitality need active use, and its earnestness an adequate motive. It will go well with society when it practically illustrates Coleridge's beautiful definition: "Labor should be the pleasant exercise of sane minds in healthy bodies."

But to fill employments with a divine life, they must be performed with reference to others; for we can really enjoy only that which we impart freely. The following extract from one of Beethoven's letters, exhibits the human soul in the noblest exercise of its immortal powers: viz.: embodying the highest conception of art, from a genuine love of art, warmed by the motive of doing good to others. He writes thus: "My compositions are well paid, and I may say, I have more orders than I can well execute. I ask my terms and am paid. You see this is an excellent thing; as, for instance, I see a friend in want, and my purse does not at the moment permit me to assist him, I have but to sit down and write, and my friend is no longer in need."—*Mrs. L. M. Child.*

Currant and Gooseberry Pies.—Green currants and gooseberries, for pies, are not apt to be sweet enough, without the sugar is scalded in before they are baked, as the juice of the currant is apt to run out while they are baking and leave the fruit dry. Stew them on a moderate fire, with a teacup of water to a couple of quarts of currants; as soon as they begin to break, add the sugar, and let it scald in a few minutes. When baked without stewing, put to each layer of fruit a thick layer of sugar. There should be as much as a quarter of a pound of sugar to a pint of currants, or more, if you wish it.—*Ohio Farmer.*

NEW ENGLAND FARMER.

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FRUIT AND ORNAMENTAL TREES.

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OUR new Wholesale Catalogue or Trade List for the Autumn of 1855, is ready, and will be sent, gratis, to all who enclose a stamp. The stock now on the grounds is of the finest description, and by far the largest that has ever been offered in this country. Nurserymen, dealers and planters can be supplied on very advantageous terms, and they will find it to their interest to consult our list and examine our stock before purchasing. Our arrangements for packing and shipping are so complete that we can forward packages to the most remote parts of the U. S. and Canada with safety. Any of the following catalogues will be sent to all who apply and enclose a stamp.

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These celebrated Machines are in operation and for sale at

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Where specimens of their work will be furnished at any time.

J. E. ROOT, Agent.

Feb. 1855. 1y.

RUGGLES, NOURSE, MASON & CO.

Manufacturers and Dealers in all kinds of

AGRICULTURAL IMPLEMENTS

AND MACHINES,

SUCH AS HORSE POWERS, AND THRESHERS,

FANNING MILLS, KETCHUM'S MOWERS,

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Superior Plows of all Kinds and Sizes,

HORSE HOES, SEED SOWERS,

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HAY, STALK, AND STRAW CUTTERS,

STORE TRUCKS, SHOVELS,

SPADES, FORKS, HOES, Etc.

MANUFACTORY AT WORCESTER.

WAREHOUSE,

Quincy Hall, Boston, Mass.

January, 1855.

FRUIT AND ORNAMENTAL TREES,

SHRUBS AND ROSES.

THE undersigned having been for several years engaged in selecting with care, TREES, SHRUBS and ROSES, from Nursery grounds, to answer orders entrusted to him, confidently feels himself qualified to satisfactorily answer the orders of those who like to purchase the best article in this line. By giving his personal attention to the selection of trees from none but the most reliable Nurseries, to packing them in the safest manner and accompanying them past the Hudson, to prevent delay, he is able to forward his customers a superior article in the most perfect order.

I visit Rochester, Spring and Fall, and, as purchasers may readily conceive, I can often fill, more satisfactorily, orders received in season to fill from the numerous and extensive Nurseries at Rochester, than those delayed to be confined to a stock I would be expected to bring out.

Having made permanent arrangements with B. MATTHEWS & Co., proprietors of the Genesee Falls Nurseries, Rochester, N. Y., for a constant supply of the most choice varieties of STANDARD PEAR TREES, of bearing size and symmetrical form, cultivated exclusively from native seedling Pear stock, I am now prepared to supply an article superior in quality to any heretofore offered. The superior quality of these trees over those of other Nurseries, is the result of an improved mode of cultivation. The eminent position to which Mr. Matthews has attained in the Horticultural world, by his extensive experience, skill and integrity, is deemed a sufficient recommend for trees sent from their grounds. For myself I have been permitted to refer to J. A. Nash, Editor of the Connecticut Valley Farmer, Amherst, Mass., Leander Wetherell, formerly Editor of the Amherst Express, Amherst, Mass., Dr. Wm. L. Fitch, Springfield, Mass., J. R. Merrick, Palmer, Mass., and my customers generally.

All orders thankfully received and promptly and carefully attended to, and should be addressed to the subscriber at the Thorndike P. O., Palmer, Mass. M. L. HITCHCOCK.

August, 1855. 3t

J. HAPGOOD,

Manufacturer and Importer of

Guns, Rifles and Pistols,

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GUN LOCKS AND GUN TRIMMINGS.

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THE

NEW ENGLAND FARMER:

A MONTHLY

AGRICULTURAL JOURNAL.

FOR THE FARM AND GARDEN.

SIMON BROWN, Editor.

FREDERIC HOLBROOK, OF VERMONT, HENRY F. FRENCH, OF NEW HAMPSHIRE,

ASSOCIATE EDITORS.

Without encouragement of AGRICULTURE, and thereby increasing the number of the people,
any country, however blessed by nature, must continue poor.—SWIFT.

Vol. VII. SEPTEMBER, 1855. No. 9.

BOSTON:
JOEL NOURSE, PUBLISHER,
QUINCY HALL.

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POSTAGE.—The Postage on the Monthly Farmer, to subscribers, is now twelve cents a year, to be paid quarterly or yearly, in advance, at the office where it is received.

DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

VOL. VII. BOSTON, SEPTEMBER, 1855. NO. 9.

JOEL NOURSE, Proprietor, Office....Quincy Hall. SIMON BROWN, EDITOR. FRED'K HOLBROOK, HENRY F. FRENCH, Associate Editors.

CALENDAR FOR SEPTEMBER.

"*Now* Harvest's *busy hum declines.*"

SEPTEMBER, though the first of the Autumnal Months, has an average heat scarcely less than that of June. For several years past, the severe summer droughts have extended even into September, and the first half of the month, both day and night, has been oppressively hot, the earth parched and cracked, and the foliage hard, dusty, and dry. This year is an exception, and vegetation has more the appearance of the vernal season, than that of the season of decay. The frequent summer showers have given great and constant activity to the growth of plants, and kept them in a green and vigorous condition, so that they now cover the earth with freshness and beauty.

Notwithstanding this, "the youth of the year is gone. Even the vigor and lustihood of its maturity are quick passing away. It has reached the summit of the hill, and is not only looking, but descending into the valley below. But if SEPTEMBER is not so bright with promise and so buoyant with hope as May, it is even more embued with that spirit of serene repose, in which the only true, because the only continuous enjoyment consists.—And SEPTEMBER is the month of consummations—the fulfiller of all promises—the fruition of all hopes—the era of all completeness. Let us then turn at once to gaze on, and partake in its manifold beauties and blessings, not let them pass us by, with the empty salutation of mere praise; for the only panegyric that is acceptable to Nature is that just appreciation of her gifts which consists in the full enjoyment of them."

Before the month closes, however, the general face of the country will have undergone a very material change since we left it last month; and none of its individual features, except the woods and groves, have improved in their appearance. Fields where the small grains were cut, present a rough appearance of coarse stubble, and weeds which have grown and ripened their seeds since the grain plants were harvested; others show the new furrows of the plow, or, perhaps, if criticized carefully, the young wheat or rye, just penetrating the surface, to come out and warm itself in the soft sunlight, and take root and gather strength to resist the winter frosts.

"And even now, whilst Nature's beauty dies,
Deposits SEED, and bids new harvests rise."

In other fields, milch cows and oxen are cropping the "fall feed," or quietly chewing the cud under the spreading branches of some friendly tree. But "the fields have no longer the rich luxuriance of their Spring bloom, nor even the delicious scent which belonged to them when the vigor of youth was upon them. They are the pale and feeble offspring of the declining life of their parent."

Some of the summer birds have left us, both songsters and others. The chatty martins have gone, and with the exception of here and there a pair, the swallows have departed—"urged thereto by prophetic instinct, which will not be disobeyed," and which makes them exact observers of times and seasons.

The vegetable garden "looks big with events," while the fruit garden is more tempting than ever. Crimson apples, golden pears, and luscious grapes more than repay the labor of cultivation in the health they promote and the gratification they impart while sharing them with friends.

SEPTEMBER will be like herself, after all.

"Glittering dews at morn and fogs at eve,
Hasten the gathering of the fruits of earth."

The leaves begin to fall, the meadows turn brown, frosts occasionally sparkle in the early sun, and the beautifully varied tints appear among the leaves of the trees standing in low grounds.

So the month and seasons roll along, each peculiar to itself, and each presenting aspects and features more interesting at their own proper time than they possibly could be at any other season; and all proclaiming the benevolence of that Intelligence which has spoken them into existence, and which directs them all, even to the tiniest insect that dwells upon the dust of a flower.

In their succession and varied attractions, we must find sources of gratitude and joy; learn to avail ourselves of the opportunites which they present for our improvement, and fully appreciate the advantages which they present as they pass along.

> "To me the meanest flower that blows can give
> Thoughts that do often lie too deep for tears."

SEPTEMBER affords an opportunity for doing certain things which no other month can—there is *such* an opportunity. The farmer having secured his grain—all but the inimitable Indian corn harvest—his hay, his winter rye and winter wheat got *in*, and his piles of loam or muck for winter hauling got *out*, can afford to visit others and see how they manage their affairs. How wide and deep they plow, and what sort of implement the work is done with—how crops are planted and tended; how orchards are set and pruned; how reclaiming and drainage are managed; how milch cows, horses, oxen and swine appear compared with their own, and lastly, but by no means of the least consequence, how farmer Thrifty's wife manages her domestic concerns, and whether she has not a washing machine, and several other exceedingly convenient and not costly articles of furniture, which his own has not! Such a visit of observation as this, would be of a most pleasing as well as profitable character; and the wife and daughters may profit by it just as much. We hope September will be greatly improved by our friends in this manner.

If winter rye has been omitted, it may answer to get it in early this month.

Old grass land may be plowed and seeded to grass, though it were better done in August.

Swamps may be reclaimed and ditching done, where the land is sufficiently dry to admit of operations.

Meadow muck in abundance should be thrown out ready for winter hauling.

All the crops should be carefully harvested as they ripen: the potatoes sorted as they are collected, and those intended for seed kept by themselves.

Rank weeds that have been overlooked and gone to seed should be pulled, dried a little and burnt, to prevent their seeding the ground for another year.

Cutting the stalks of corn is preferable to letting them stand. Cut when the spindle is dead, and the edges of the leaves begin to be dry.

CORN-CARRYING ON THE RUSSIAN STEPPES.

In order to judge at what cost the most important of those exports are thus brought, and in order to enable an inquirer to predict with any approach to certainty what could be done under the pressure of the most extraordinary temptation from without, let us leave the sharp stones, deep mud, or clouds of dust of Odessa, and examine the tracts along which those long line of bullock wagons come creeking from more northerly directions. I have said that a vast belt of Steppe girdles this coast. We are upon a Steppe. The prevailing color, as far as the eye can reach over the immense plain, is a scorched brown. The intense heat and drought have reduced the Steppe to this condition, and far beyond the horizon line, and away, verst upon verst, is the same dreary looking and apparently waste expanse. Not that it is all flat—hills, barren and rugged, diversify the line, and add to its difficulties, in dry weather considerably, in wet incalculably. For look at the ground on which you stand. You are on one of the roads, as they are termed. Elsewhere, a road, good or bad, means something which has been *made*—a line, upon which has been gathered material for binding and clasping, and below which there is some kind of draining; bad or good, the road is, as compared with the adjacent land, dry, compact and elastic. Dismiss all such ideas from your mind, or rather drag your limbs for an hour behind that corn-wagon, and such ideas will disappear of themselves. Dead and helpless seems that wo-begone track, creaking and drawling over which comes the bullock-wagon—all wood, and built precisely as wagons were built a thousand years ago. The driver sits in front, occasionally lashing the gray bullocks more by way of form than with any idea of hastening them, and his massy heard hangs down over a species of censor, whence arise fumes of an unsavory kind. But it is not in luxury, or in imitation of his eastern neighbors, that the peasant keeps this odor-breathing vessel under his nose—the contents are an abominable mixture for greasing the wheels of his wagon, and by which you may trace it through many a yard of tainted air. Why he has placed the reeking vessel between his legs I know not, unless it be to remind himself more forcibly of the necessity of an operation, without the incessant performance of which his clumsily built cart would be on fire in four places at once. Contrast this wretched machine with the well contrived, iron mounted cart of the German colonist, a few miles hence. But on goes the wagoner, jolting and creaking along the unhelpful soil, and singing some of those old airs in which, rude as they are, there is some melody, or saying prayers to one or other of the multifarious national saints. On he goes, and so he and his predecessors have gone since corn was grown in Russia. Ricketty carts, knotted rope harness, drowsy bullock, wretched roads—so crawls the loaf towards the Englishman's table.—*Shirley Brooks, a Year in Russia.*

☞ The *Lexington* (*Mo.*) *Express* states, as the result of a careful inquiry, that the hemp crop of Lafayette county is inferior in quantity if not in quality, and that it will perhaps turn out more than than two-thirds or three-fourths of the amount usually produced.

For the New England Farmer.

SEEING THE CITY.

Country people who visit the city for the first time, usually go to the Common, the Navy Yard, the State House, the Monument, the Custom House, the Wharves, and a few other prominent points which their inclinations or their guides may suggest, during the day, and in the evening they visit the Museum, or some other place of amusement, or take a stroll in Washington Street by gas-light.—This done, they return home well satisfied that they have seen the city. And so indeed they have—that part of it which is "on exhibition." They saw the streets filled with well-dressed people, and the shops and stores they passed or entered, with genteel and polite men and women, who appeared to have plenty of leisure and plenty of money. They looked into windows of clear glass and of wonderful size, filled with gold and silver ware, rich crockery, costly silks, gay ribbons, gilded books, carved furniture, cutlery, carpetings, pictures—every thing that heart can wish or fancy conceive, until they wondered where the money is to come from to pay for all these things. They heard the noise and bustle of the crowded streets, and looked upon the whirl of the moving multitude, till the very stones of the pavements and the bricks of the buildings, like the people on the side-walk, seemed conscious that they were city bricks and city stones, and proud of the part they were playing in this animating scene.—They gazed at the residences on Beacon Street or Pemberton Square, with their swelled fronts and granite steps, and perhaps caught themselves contrasting their own humble homes with these princely mansions, and really felt a few twinges of envy down in some sly corner of the heart, or with a strange bitterness, suppressed the inquiry, Who maketh thee to differ from another?

In this way people generally see the city; in this way the city is made to be seen; and I am not sure that it ought to be seen in any other way.

The dark side, the opposite of all this glitter and show,—a degree of poverty and wretchedness as much below, as all this display of magnificence and wealth is above the real wants of our nature,—may be found hiding in the cellars and garrets of all great cities; but is so loathsome an exhibition desirable? would it do good? Is it not well that misery seeks retirement; and that the wretched and the vicious are content to pine or revel in obscurity?

Without any disposition, then, to set out the dark side of city life as an antidote against the tendencies of its bright side, I have often thought it would be an improvement on the usual style of city-seeing, were visitors allowed to gain some little knowledge of the way in which city mechanics and laboring people generally work and live.

For every well-dressed person that one sees playing the gentleman and lady, during a day's ramble in the streets of Boston, there are probably, at all times, within a stone's throw, a score or two of begrimmed mechanics of both sexes busy at work in shops "in the rear," "overhead," or "in the basement;" over the entrances to which is painted in large letters, "Positively no Admittance, except on business," an enactment, however, that, like other "prohibitory" laws in Boston, is enforced or not, as the "proprietors" see fit. Taking our curiosity as the "higher law," then, suppose we venture up that dirty flight of stairs jetted in there between the front windows of those two stores. Reaching the first landing, where are we? Two more flights, one to the right, the other to the left, lead to still higher "flights," while a passage-way directly forwards takes us through the front building into one in the rear that fronts on no street, but is entirely surrounded by and connected with buildings which do front on two or more streets, or "Places," as "headed-in" streets are often called. But I shall not have time to describe these various shops and offices, if we visit them, so we will merely read "The Directory of this Building," as it hangs, in the shape of a great sign, right before us. "No. 1, John Doe, Attorney and Counsellor at Law." "No. 2, Nathaniel Grinder, Dentist." These are the two front chambers, nicely carpeted, and away from the clatter of the engine, which is puffing away in the basement of the building. Then we have a Tailor's shop, a Manufacturing Jeweller, a Printing office or two, a Coffee-grinder, a Gold-beater, a Book-binder, a Carpenter's shop, &c. &c., in all some ten or fifteen different establishments occupy the five stories of which the building consists, and employ perhaps some hundreds of individuals of both sexes. Here men and women ply their busy tasks, with almost as little acquaintance with their fellow-laborers in other parts of the building, although passing and repassing the same threshold daily, as they have with people in other cities. And yet this swarming hive of city laborers presents a crystal front to the street, and perhaps a half-dozen starched clerks are the only representatives of this busy multitude that can be seen from the sidewalk.

High rent necessitates the economy of room; and operatives are consequently crowded into the smallest space consistent with the nature of their employment. Working almost entirely by the job or "piece," and incited by the example and weekly bills of the fastest workmen, a spirit of emulation is roused, and as a general thing, I believe hands work harder in large than in small companies—harder in the city than they do in the country, at the same business. The demand for money, likewise, to meet the higher rate of house-rent, and of almost every thing else, in the city, as well as the contagion of an almost universal example by all classes of a desperate effort to "keep up appearances," are among the extra spurs which the city furnishes to move the hands faster in the shop, and the feet faster in the streets, than they were wont to do in the country.

But I must close this article. My yarn has spun out beyond my expectations. I have not said any thing of how city mechanics live, and but little of what I intended to have said of how they work.—But perhaps enough to show that an opinion of city life and city employments, based upon what is to be seen in a day's walk through the principal streets, may be a very incorrect one.

Boston, July, 1855. A City Mechanic.

Home Made Chloride of Lime.—Professor Nash says, take one barrel of lime, and one bushel of salt; dissolve the salt in as little water as will dissolve the whole; slack the lime with the water, putting on more than will dry slack it, so much that it will form a very thick paste; this will not take all the water; put on, therefore, a little of the remainder daily, until the lime has taken the whole. The result will be a sort of impure chloride of lime, but a very powerful deodorizer, equal for all out-door purposes, with the article bought under that name at the apothecary's, and costing not one-twentieth part as much. This should be kept under a shed, or some out building. It should be kept moist, and it may be applied wherever offensive odors are generated, with the assurance that it will be effective to purify the air, and will add to the value of the manure much more than it costs. It would be well for every farmer to prepare a quantity of this, and have it always on hand.

For the New England Farmer.

THE BEAUTIFUL AND USEFUL.

MR. EDITOR:—Sir,—It is natural to the human mind to love the beautiful, and appreciate true worth. A departure from this rule, is perversion of taste, not nature. For instance, let a child grow to maturity, its mind become fully developed, and taught only as Nature would teach; that mind would become complete in native loveliness. The wood, the lawn, the vale, and meandering stream, would lend their magic charms to tranquillize the mind and point through Nature's loveliness to God, the originator, and beautifier of all. The ocean grand, the mountain bleak, the grotto wild, and deep ravine, with rocks of towering height, and mighty chasms, which exhibit the convulsive throes of Nature, in some momentous period, (a period prior to the knowledge of puny mortals, and far too comprehensive for human conception,) evince to that mind a God of power, might and majesty; and leads to deep adoration, as well as love.

Nature to me is beautiful in her contrasts as well as harmonies. I love to walk among her scenes, and be taken by surprise at some unexpected freak of her playful wildness. How tame and common-place would she seem, did she work with geometrical precision; or with rule and compass always in hand. Neither can I perceive the consistency of her swelling each side the road, about one hundred yards therefrom, for the seat of our country residences, even to please so fastidious a taste as "Agricola's." When such is the case, I shall likewise expect that the taste of every man will be so changed, as to paint his house a soft "warm stone color," and flowers be all a "dappled grey," and nature and art one harmonious blending.

I love to see a taste for the beautiful displayed in the selection of ground, the arrangement of shrubbery, and the intermingling of lovely plats of flowers, surrounding our abodes with scenes of gay profusion; but the useful and the beautiful, it should always be borne in mind, will only give permanent pleasure. Or, in other words, we do not love to see a dwelling of rare loveliness embowered in beauty and bloom, with "Sheriff's Sale" written in conspicuous characters thereon; or to know the owner no longer calls it his. And should some "golden dreams" of the modern El Dorado cross his imagination, as the means of retrieving his shattered fortune, he be obliged to sneak, and crawl to some secluded corner, lest his creditors destroy his golden hopes.

Far be it from my humble efforts to retard the progress of the beautiful. Let her go hand in hand with usefulness. Let the farmer or mechanic of moderate means, when he purchases his abode, or erects his cottage home, do so with a just intention of beautifying it according to his means; (never beyond,) and I would suggest that instead of the forest, he select the various fruit trees to form his pleasant shades. They are as beautiful and fragrant in bloom, and as lovely to our vision, when their rich fruit combine with their deep green foliage. And many a blending and contrast can be formed by the right arrangement and commingling of their lighter and heavier foliage.

But mankind have different tastes; they act differently, and think differently; and will build houses differently. Nature has different arrangements. On some farms she has undulations, and some she has plains; I would not for myself have all cloud or all sun; but one thing I would desire, a fair representation of country residences, if representation be required; and truthfulness and honesty in all. FLORA.

Fairhaven, 1855.

For the New England Farmer.

LETTER FROM THE HOMESTEAD.

BY H. F. FRENCH.

MY DEAR BROWN:—Of all the days in the year, give me a rainy day in haying time for attending to neglected duties in the way of writing. After days of hurry and heat and hard work and dust, of rising at daybreak and swinging the scythe while the dew is on the grass, of raking and pitching under a burning sun, of stowing away half-smothered under the eaves, comes this quiet, soothing rustle of the rain-drops on the leaves, when we awake in the morning. We give a half-sigh for the hay-cocks, but are easily consoled when we think of the corn and potatoes and the pastures; entirely resigned, when we recollect the scorching drought of last summer, and on further reflection, quite rejoiced that we have not the responsibility of taking care of the weather, which is managed so much better without our help.

When I say *we* in these preliminaries, I intend to include a part of "the rest of mankind," for candor compels me to admit that as a strictly personal remark, there is a slight figure of speech in that allusion to the scythe in the dewy grass, for though I have mowed a handsome swath in my day, I have found it more consistent with other duties, of late, to see other hands perform that labor. Still, the rain brings leisure from out-door cares, and as dog-day weather is too hot for severe studies, even in the way of agriculture, we will lay aside the abstruser matters of soil analysis, of superphosphates and chemical affinities, and discourse of familiar matters better suited to the weather and the season of haste and heat.

You see that I date once more at Old Chester, and the Homestead, where we are seeking health and repose for one who has been almost overcome in life's battle; hoping for strength in the clear sky and pure air of an inland and hilly position.

A gentleman of much observation, whose wife was suffering for years with some affection of the lungs, who had travelled with her for her health through Europe, and finally buried her in Florida, recently expressed to me his thorough conviction that no region in the whole world affords at any season a more beautiful and healthful climate than this part of New England in summer. "Italy itself," said he, "has not a clearer sky nor a purer atmosphere, and they who wander abroad in search of health, at any season, find only suffering and disappointment."

How rational men and women from the cities can be persuaded to pass the summer at the beaches and fashionable watering-places, parading round on the sea-shore without shelter or shade of any green thing, suffering the tortures of Regulus, who was exposed by his enemies to the noon-day sun with his eyelids cut off—how they can endure the glare of the ball-room in dog-days, and the crowded chambers of fashionable hotels, not to mention the killing conclusion by way of paying the bills—how all this can be translated into pleasure by rational people, when the peaceful, quiet hills and valleys of the country invite them to health and freedom from restraints of fashion and artificial life, passes comprehension.

But to return to the Homestead. Fourteen years almost have elapsed, since professional ambition, or, perhaps, rather, the necessity of earning my living, called me from my native town, and this is my first return except as a transient visitor.

If I could assemble all the boys of New England together in this old village, and show them the trees that my own hands have planted and assisted others in planting, no doubt a score of years would witness such an improvement in the streets of our towns as no mere talking or writing can accomplish. Twenty-five years ago or thereabouts, the old Lombardy poplars which had been planted about the paternal mansion when it was built, in the first years of the century, were decayed so as to be no longer an ornament, and were cut down. There stood the tall, white three-story house close to the street, with only a few lilacs and roses to shelter it. Now, as you approach the mansion on either side, no glimpse of it, except of a chimney-top, or of a window or door, where the branches have been cut away, can be seen. The rock maples and horse-chestnuts and elms have interlaced their boughs and lifted their heads so as completely to shelter it. A quarter of a century has sufficed to increase the trees which a boy could carry on his shoulder to a foot or more in diameter. Yesterday I fixed a swing for my children upon a chestnut which grew from a nut which I saw my father plant in the garden, and which I transplanted to its present place some twenty years ago. The street is lined for half a mile with elms and maples which we boys of the village with our own hands dug from the rocky soil of the forests and planted. Now they are the beauty and glory of the place.

No man ever yet I think repented that he planted a shade tree by the way-side. Nothing has so civilizing an influence upon the habits of children, as this taste for nature's products. I confess for myself and the generation of boys of my time, that though we were tolerably civilized in our notions about trees, the fashion of the day paid little respect to birds and beasts. With us, a squirrel was made to be trapped and drowned, and a bird as a general thing was made to be shot. Bounties on crows and blackbirds were the only legislative aids to agriculture, and box-traps and cross-bows were good enough for chip-munks. But, perhaps it may as well be confessed, without much encouragement from the paternal side, we find a different spirit among our children. The robin's nest, almost within reach of their chamber window, has been watched from day to day, and the number of eggs reported to the family. The young have hatched and grown up and flown away unmolested. Pieces of thread and cotton have been hung on the fences for the good robins to weave into their nests. A red squirrel is seen hourly jumping from tree to tree, or running over the front-yard fence, and the children have a hole in an apple tree, where they place nuts and other luxuries for him to carry away.

The kitten is a great pet, but yesterday she caught a striped squirrel which has taken up his abode in the wood-pile at the door. She marched into the kitchen with a most triumphant air, with her victim in her mouth, expecting, doubtless, as much commendation as if she had taken the largest rat in the cellar; but alas, no administration, with a Nebraska bill in its teeth, ever met more general reprobation. Brooms and dish-cloths, with an accompaniment of shouts, and a general rush of the small folks upon the astonished favorite, soon convinced her that she had fallen into some error of taste or judgment, and she was compelled to seek safety in flight, dropping the little striper unhurt by the way, and taking refuge for herself under the wood-shed, till the wrath of the people subsided.

On the whole, this is the true education for children. He who loves the works of God is near to loving Him.

"He prayeth best who loveth best
All things both great and small,
For the dear God who loveth us,
He made and loveth all."

Perhaps it is possible to rear children in cities, with pure tastes and healthful ideas of the duties and objects of life. Perhaps the boys may escape the conviction that money is the one thing needful, and the girls, that dress and the opera are above all price, and that the chief end of woman is to excite admiration in a waltz, but surely the country is the true school for healthy development of body, mind and heart, and let us who live on the farms, never complain that our lots are not "cast in pleasant places," and that we have "not a goodly heritage." H. F. F.

Chester, N. H., July, 1855.

A WORD ABOUT STUMPS.

Some things, according to King Solomon, are enough *to make "a wise man mad."* I know not whether it be wise or unwise, but I have often been vexed with STUMPS, with whole fields of stumps, and sometimes with even one, which has stood like a lubber, right in my way, to bruise toes or hurl my wheel aside. I have a grudge against these deformities, which I may carry too far. I was riding years ago in Ohio, a stump capsized the stage and crippled me for months, and there my grudge began. Riding awhile after in a stormy night, the stageman planted his axle flat on the top of a huge pine stump, which stood then, and I dare say, stands now right in the centre of a Western road; this led to hard words between driver and "all hands," and my grudge was confirmed. We are an amazing free people, we love and hate what we please. Some men love their deformities, and some farmers seem to love their stumps, and bequeath them as heir looms to their children. *De gustibus non est disputandum.* I marvel, however, at their taste. It reminds me of the young lady, who on a warm night in August, said she could "not see for her life why people so much object to the smell of a skunk!" Some wonder why I object to stumps, whilst others, I am happy to say, are in full sympathy with me.

I am glad to see evidence, that here and there a farmer is "*stirring his stumps.*" I have just seen the exploits of MR. WILLIS' STUMP EXTRACTOR, at Orange, Mass., where he has began to manufacture the article on a large scale.

I am satisfied this machine has *prodigious power*. One of common size, it is computed, has a purchase of 336 tons, and this it seems may be increased almost beyond computation, so as to hurl out the biggest monster imbedded in the soil!

I am satisfied, it can be worked very rapidly. Three men can do as much work with it, as fifty or perhaps a hundred can do without it. Well worked, I am told, it will turn out a lusty stump each ten minutes, hour by hour. I am satisfied this machine is much needed, even in New England, and still more in the Middle, Southern and Western States. It has made many fields lawn-like and beautiful, in and around Orange, and if brought into requisition, it can do the same from Maine to Georgia. The cost is something, but not frightful. A good machine, with the exclusive right to use it in any one town in the union, costs $150 or $200, no more. This is less than the price of a Piano, less than the price of the gold watch, with "fixins," which dangle from the pocket of many a fop! One machine may serve a whole town; and a tax of $200 levied on a score of enterprising farmers, would be no killing affair. One young man in a town hard by me, has made purchase, and is now working the machine day by day at a clean profit, of from $3 to $5. What work, what sport is more lively and amusing than "ousting" stumps? What agricultural work will pay half as well?

A man is blind, he needs a candle at noon-day, who does not see that he had better pay for a machine from his own purse, and give the use of it to his neighbors, than have a half a dozen acres of his best fields occupied and defaced with stumps all the days of his life. $200 will place this machine and town right within the reach of every group of respectable farmers, hence stumps have now no such right to mar "fair creation," as in past times.

I think Mr. Willis, the patentee, a benefactor; his patent will make rough places smooth, make two, yes, ten thousand spears of grass grow where but one grew before, and prove an element in the great progress of civilization.

A gentleman from Valparaiso, deputed by the Chilian government, has purchased four machines, which are now on their way to those semi-barbarous regions; it is to be hoped our excellent farmers will take the hint, apply this machine to some millions of stumps which pain our eyes on the right and left, wherever we travel. Gentlemen, "up and at um."—*Northern Sentinel.*

For the New England Farmer,

"LUNAR INFLUENCES."

MR. EDITOR:—Though not a subscriber to your very valuable paper, nor even being permitted to peruse its columns regularly, my eye rests occasionally on an article which attracts my attention. And among others, that series of articles which have appeared from the pens of different contributors, for a few weeks past, on "Lunar Influences," struck me as a question which may yet be one of interest and importance to the agriculturist. From actual experience I cannot say anything, and some may reject my remarks as of little value, citing the old adage: "*Experience is the best master.*" Very well. But from the *known* fact of the "influence" of the moon on the tides, may we not reason from analogy that further investigations may bring to light influences operating on other substances? I am of the opinion that this way of treating anything new with ridicule, is, to say the least, a poor means for gaining one's point. " *," who writes in the *Farmer*, (July 7,) resorts to this means. He is most assuredly entitled to his "*opinions* heretofore entertained;" but his reference to the influence of the Pleiades, or of Orion, on the growing of Indian corn, is in my humble view supremely ridiculous. I think if " * " will have patience, that with the progress of the sciences something will be produced in connection with this topic which will be, if not *demonstrative*, yet *convincing*. We ought to use reason in all our researches after truth, and not be too bold in expressing our opinion till sufficient facts have been adduced to warrant an impartial decision. Let us wait, then, a "little longer," and see what further developments will do.

Mr. Editor, by inserting this you will greatly favor one interested in the cause of science and agriculture. "DELTA."

Chelsea, Mass., July 10, 1855.

REMARKS.—*Does* the moon affect the tides? We are more inclined to the belief that the tides are occasioned by the revolutions of the earth, emptying the contents of caverns into each other at stated periods, and of which Boston harbor is one. We have several articles under the same head as this, but doubt whether any of them would be profitable to the reader.

THE SKY-LARK.

Bird of the wilderness,
Blithesome and cumberless,
Sweet be thy matin o'er moorland and lea!
Emblem of happiness,
Blest be thy dwelling-place,
O, to abide in the desert with thee!
Wild is thy lay, and loud,
Far in the downy cloud,
Love gives it energy, love gave it birth.
Where, on thy dewy wing,
Where art thou journeying?
Thy lay is in heaven, thy love is on earth.

O'er fell and fountain sheen,
O'er moor and mountain green,
O'er the red streamer that heralds the day,
Over the cloudlet dim,
Over the rainbow's rim,
Musical cherub, soar, singing away!
Then when the gloaming comes,
Low in the heather blooms,
Sweet will thy welcome and bed of love be!
Emblem of happiness;
Blest is thy dwelling-place,
O, to abide in the desert with thee.

THE FARM SUPPORTS ALL.

People may reason and theorize about the comparative usefulness of different pursuits and occupations. We will not quarrel with any man, because he insists that a trader or broker is as useful a man as the farmer, but we *will* quarrel with any man in a gentlemanly way, who will not admit that the farmer's life does possess *as much* true dignity and utility as any other. We will, for civility's sake, admit equality, but can acknowledge no superiority.

Agriculture is the basis of all national prosperity. A child may see that if the earth is not cultivated, the whole population in a single year, or at most, in two years, when the cattle are consumed, must literally starve, while society could exist to an indefinite extent, were the labors of any other interest to cease at once. Observe the course of trade, and inquire of the merchants even in our own country, and we shall find, that upon the products of the soil does all the prosperity of trade depend. If the cotton crop is short, the southern trader cannot order goods from the North, or having ordered, fails, and cannot pay for them. He fails because the planter having fed to his negroes all his corn and bacon, has nothing left wherewith to pay for his family supplies. If the wheat crop fails, the Boston and New York merchants at once feel the effect of the failure, for the Western merchant cannot meet his liabilities, nor incur others.

When all things are prosperous, the farmer is almost forgotten. He labors hard and brings the product of his labor to a full market. He is met by sharp speculators with the cry, that the market is glutted and his supplies are not wanted, and is compelled, because he cannot enter into combinations to meet the banded monopolizers, to sell at a price which gives him but scanty pay for his industry. He feels that all the world is prosperous except himself, and the trading public, forgetful or careless that the farmer maintains and even produces all this prosperity by his quiet pursuits, look down upon him perhaps with contempt.

To be sure, he has at such times, in common with others, enough of food and clothing. He does not want, but his abundance and success seem to profit others more than himself. Indeed, he hardly participates in the general prosperity which his own hard work and watchful care has created.

But by-and-bye the scene changes. The crops are short in some sections of the country. Supplies are not forwarded to the great marts of trade for the adequate supply of the inhabitants of the cities themselves, or to meet the demands of commerce. Business is deranged, merchants fail, the country traders are discouraged, the whole country languishes, and there is a general cry of hard times. But the farmer does not fail. He raises his own food in abundance still. What he can spare brings him an increased price in the market. The traders and speculators come to his very doors, and entreat him to sell them at any price enough to meet the present necessities of their business. And so, when the earth is laid waste and labor diverted from its legitimate pursuits, by want. Then the farmer increases his exertions. He sows more broadly, he labors more earnestly. He feels that men in foreign lands, who are dragged by hard masters from their homes to engage in bloody battles, are dependent on him for their daily bread. Still his own supply is abundant, and others demand a share, and offer him a generous reward for his labor. The world, stupid as it often is, in times of general peace and prosperity, *now* appreciates the farmer's useful life. What then is the true position of the cultivation of the land? Is it one of hard work and servile labor only, or is it one of dignity and importance, indispensable at all times? Farming is doubtless hard work, in the general acceptation of the term, but it is a great mistake to call that only hard work, which is performed with the hands. The lawyer, confined to the stifling and crampt air of a court-room for days and weeks, with the property and lives of his clients at stake, and dependent on his watchful, constant care; the minister, bound to his stated preaching, whether in health, or feeling himself sinking already under his harassing and never-ceasing responsibility; the doctor, called out at midnight to prescribe in an instant, in a new and doubtful case,—these have all their labor, harder work than any performed by the hands alone. Many farmers labor too severely, more so than there is any need of; but still, we think, their hardships are not so great as those incident to the professions we have named. They have, besides, what traders and speculators, and even mechanics, can never have, what is really a source of more enjoyment than wealth can bring—they have *security for the future*. They plant and sow in faith, and with full assurance that the harvest will not fail. Railroad and bank stocks may rise or fall, the market for their own produce may be high or low, war or peace may prevail, free-trade or high duties may triumph, but they know that "God giveth the increase," and that they and theirs are dependent on Him alone. Young men make haste to be rich. They forsake their "paternal acres," and strive in doubtful paths to outstrip the fickle goddess, Fortune. As age brings reflection, and juster views of the true objects of life, most men place a higher value on the peaceful pursuits of agriculture. The repose and serenity of a farmer's life have charms for them, beyond riches, and all the pleasures wealth can buy.

Indeed, it is rare to find a merchant, or successful mechanic, who has in early life left his rural home for a life in the city, who does not look forward with pleasant anticipations to the day, when he shall return once more to his native hills, or at least to the occupation of a homestead, where his children may imbibe true ideas of the dignity and independence of a life on a farm.

This may seem a trite and common-place subject. We claim no originality for these thoughts, but it would seem that now, when wars are desolating the earth, when prices are paid in our markets that would indicate that famine must somewhere prevail, it would seem that now, both the farmer himself, in his independence of other men from the vicissitudes of life, and all others, in their dependence on him for daily food, might see and feel, what more than all else we would impress on all, that Agriculture is the foundation of national prosperity, and that the position of the farmer is entitled to be that of the highest honor.

For the New England Farmer.

LABOR-SAVING MACHINERY.

The precautionary remarks of the editor of the *Massachusetts Ploughman*, in the paper of July 28, on the use of *Mowing Machines*, are well calculated to arrest the attention of farmers of less practical experience, and to awaken the inquiry, *who is right?* If it be true, as is asserted, that an individual will cut *four acres* of grass in a day, with a scythe, then there would seem to be no occasion for applying machinery to this purpose. Such individual labor has not come to our observation—*two acres* in a day being the extent that we have known to be mown by a single man. We had supposed that a machine, properly operated would cut *four times* as much as a man, and quite as well. In fact, we are entirely confident that ten or twelve acres, containing as many tons, can readily be cut in a day, by a single machine. This we know to be true, because we have seen it done the last week.

But, says the experienced editor, we tried one of these machines that came from Philadelphia, with the power of a pair of oxen, and it was "no go"—we had "to hitch on a horse to help it along." We can only say, that the machine he tried could not have been such as are now in use; because no one has occasion to halt for a moment, in the use of one of these machines, where the grass does not exceed two tons to the acre. We have never witnessed a stoppage of a machine by reason of the burden of grass. The editor further says, that two of his men will cut as much grass in a day, on fair labor, as one of these machines. In this we think the editor mistaken,—and that they will not cut more than *half as much*. We agree with the editor, that there is need of much improvement in these machines, to commend them to general favor; that they should be lighter, so as to be operated with less power; that they should be made of better materials, so as to be in less danger of breaking or giving out in the fields; and if possible, that they should be so made, as to be sold at half their present prices.—These improvements being adopted, we cannot doubt that *mowing machines* will ere long come into general use. A Looker-On.

July 28, 1855.

For the New England Farmer.

MURIATE OF LIME.

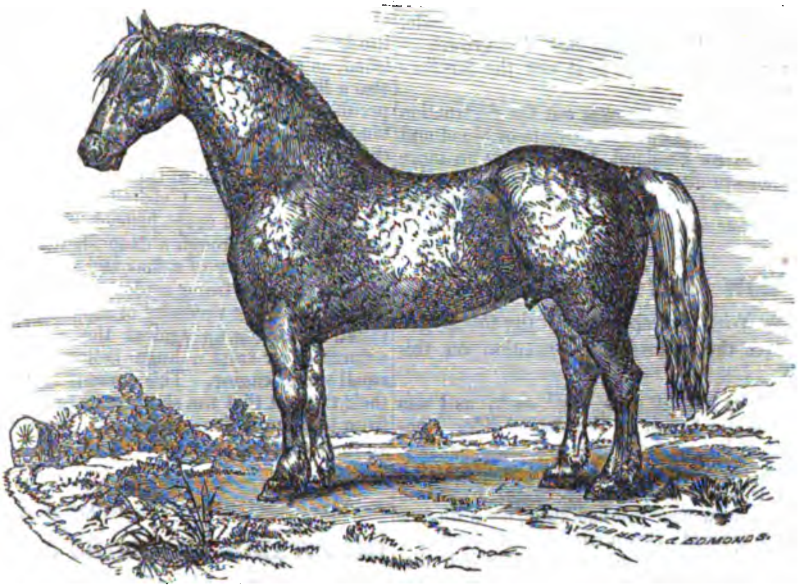
Mr. Editor:—I noticed in your valuable journal an advertisement of muriate of lime. As some of your readers may not know the value of this manure, I have taken the liberty of sending you a few lines upon the subject, which, if you think worthy, you can insert in your paper.

This article has been already noticed in some of the journals of the day, as the best article for the destruction of the canker worm, which has committed such ravages upon our fruit trees during the past season. This is, however, only one of its virtues. The soil of meadow lands contains a large proportion of humic acid, which is one of the principal constituents of peat, muck, and different kinds of decayed vegetation. The heat of summer and cold of winter alike render this acid insoluble; in this state the nutritive matter cannot be absorbed by the plant. It is necessary, then, in cultivating meadow lands, or in making a compost with peat-muck or vegetable matter, to add some corrective, which will make this acid soluble, and capable of being assimilated by plants. The best chemists and vegetable physiologists tell us that the muriate of lime and the alkali formed from wood ashes, are the proper correctives. As the former is cheapest and easiest to be obtained, of course it is preferable.

Liebig, one the first agricultural chemists of the age, tells us that this salt (muriate of lime) retains all the ammonia which falls to the earth in the rain, consequently, if it is applied to the land in the fall, by spring it has not only its own fertilizing properties, but has received and is constantly receiving, an additional property, and the one which has rendered guano of so much value as a manure for so many years past.

For grass lands this is probably the best manure which has yet been discovered, and wherever it has been used the yield has been very abundant. Much more might be said of the value of this article, but I think sufficient has already been said to show that it is worth trying, and *why* it is so. If this should meet your approval, Mr. Editor, I may send you more on a similar subject. G. L. F.

Charlestown, Aug. 1, 1855.



MORGAN DRAFT HORSE CLYDE.

[TOOK THE FIRST PREMIUM AT THE NEW YORK STATE FAIR IN 1852.]

For the New England Farmer.

WINTER WHEAT—CHESS GRASS.

MR. EDITOR:—Yourself and your readers may think I have exhausted my subject long ago, but I wish you to understand, I am a martyr to the belief that *wheat is a legitimate crop of New England.* My own experience, and my correspondents from your region, confirm me in all I have said and written upon the subject. It would really seem a work of supererogation, in any one, to advise a farmer to raise his bread. He ought to know it, from promptings of self-interest. Certainly, the products of his farm are the bulwarks of his independence. The blacksmith should shoe his own horse, and the cordwainer should shoe his own children, yet they are often found barefooted. There is an inaptitude to realize *home wants.* Is it not so?

What a relief it must be to the farmer, to go to his granary and measure out his wheat for the mill, instead of going to "the store" and paying out $12 cash for a barrel of flour. What an improvident thing is all this, while God has given him spring and winter grains, commanding him to "till the ground," with the sure promise of "seed time and harvest." Who will have the hardihood to doubt?

The time for sowing winter wheat is nearly at hand. Be sure not to pass the middle of September; if put in the first week, so much the better. Worn-out mowing lands, and old pastures over-run with low laurel, (killamb,) hardhack, thistles, moss, &c., where fifty acres will scarcely keep a cow; wall off five acres, (pastures are generally good soil and stony,) and it will make fatlings of five cows; first, put in wheat, then laid down to a pasture. No soil so good as inverted sod for wheat; no plow so good as the double Eagle, which leaves the furrow so pulverized and broken, that the grain is buried deep enough to escape winter-kill, if sown on the furrow, using the cultivator or a loaded harrow.

Again, I have planted wheat from one to six inches deep. At six inches, it came up, but was feeble; at two, three and four inches, it headed out finely. If sowed early and put in two or three inches, (on deep plowing,) it will scarcely ever winter-kill on descending lands.

Sow 1½ bushels to the acre; soak twelve hours in a weak salt pickle, and rake it in dry ashes.—Ashes spread in the spring have a fine effect on it. What is gained in the autumn growth, is so much accomplished for the next spring. Root, and strength of blade is secured by early sowing.

I learn that chess grass has troubled you. It must have been by carelessness in seeding. It accumulates wonderfully. It properly may be called the "tares" among the wheat. The remedy is, *not to sow it,* and if it appears, pass through the grain and *pluck it up;* it resembles a tuft of oats. We hope to be enlightened upon this chess grass by some of your readers. It seems to be wedded to winter wheat, as if by matrimonial alliance.

Again permit me to say, that twenty-five per cent. of your unprofitable pasture lands put into wheat, would produce grain enough to bread the State of Massachusetts. Laid down to a pasture again with rich feed, the cow returns ten dollars extra in milk, butter and cheese, the season, and adds to her own value and all other animals $5 to $10 each, showing the difference between poor and good feed. Why so much neglect of the *pasture*, while the *scaffold* is an object of such solicitude. The pasture should make the beef and growth of the young cattle; then why is it not the farmer's important revenue?

While the allies are farming out the destruction of Sebastopol with an open waste-gate of blood and treasure, the New England farmer may be more honorably and profitably engaged in subduing his tough old pasture lands, which will give him pleasure and revenue in the end. H. POOR.

HOW SHOT ARE MADE.

[The New York correspondent of the *Congregationalist* gives the following information on this subject:]

On one of the hottest days last week, as I was passing up Water Street on the shaded side, I noticed a gust of hot air from a store I was passing, which struck my cheek with the burning force of a sirocco. Curious to ascertain its origin, I entered the store and drew near the hatchway, from whence it seemed to proceed. Down from the stories above came pouring a shower of silver drops, which disappeared in the vapor from the apartment beneath. The gentleman who was standing near, perceiving my curiosity, thrust a stick beneath the white drops and drew it forth covered with melted lead. It was a manufactory of shot. The first method of making round shot, was by abrasion; a number of small rough chips or particles of lead were shaken together in a bag or box until they were worn into a spherical shape; or, from a sheet of lead, small cubical bits were separated with a punch, and ground between two flat stones, until they were rounded, as a pill is made between the palms of the hand.—The next process was by casting in a mould, as bullets are now made, but this, besides being slow and tedious, did not make the shot as perfect as desired. The latter method is by granulation, and hitherto this has been only practicable at the top of a high tower, or over a shaft sunk in the centre, so as to provide a vertical descent of 150 to 200 feet. The process is simply as follows: The lead is mixed with a little arsenic in a pot placed over a furnace. When it becomes melted it is poured by means of a ladle into a colander,—a vessel made like a sieve with holes in the bottom—which hangs over the space through which the shot are to fall. To prevent the lead passing through these holes too rapidly, a layer of dross taken from the surface of the molten metal is spread coarsely over them. Through the bottom of the colander the drops fall in a continuous shower, and after their long descent are received into a huge basin of water. This gives them their rounded form, almost all of the drops being perfect spheres. They are separated into their several sizes by shifting, after being thoroughly dried. A few, of course, from contact with others, and various similar accidents, will be imperfect. How shall they be separated from the mass? An inclined plane covered with iron is fastened with its lower edge in a box. Down this plane the shot are carelessly rolled in a thin stream. Those perfectly round acquire so much velocity that they bound off into a receiver at a little distance, while the imperfect fall into the box at the foot of the plane. Sometimes several grades are made. The most perfect are caught in one trough, the slightly imperfect in the next, a little nearer the plane, and so on to those almost shapeless particles which must go back to the kettle to be re-melted. The shot are then polished, as pins are, in a revolving barrel; in which also a little black lead is placed, to give them the peculiar finish they have when sold. I did not intend so lengthy a description when I began, although it may interest the juvenile portion of your readers, but to speak of the process of manufacture peculiar to the place I visited in Water Street.—There, the melted drops instead of falling from a high tower, or through a deep shaft, simply came from the hatchway of a four story building, used as a store, the shot being made and sold under the same roof. The necessity of the long space is obviated by forcing up against the falling shower a volume of air from a huge bellows worked by a small steam engine. This current of air so retards their descent that the shot are as perfect, in falling from the fourth floor of the store, as if they made an unobstructed journey of 200 feet.

For the New England Farmer.

IMPORTANCE OF SOWING GOOD SEED.

MR. EDITOR:—I have been a reader of agricultural papers for the last twenty years, and I like the *New England Farmer* about as well as any of them.

I am a practical farmer, on a small scale. Now it is generally agreed that liberal manuring and frequent stirring of the soil are essential to good farming. I think that good seed is also essential. I have read of large potatoes and small potatoes, and have seen them and planted them; but in relation to their relative value for seed the wise disagree. In fact there is but little difference.

Not so, however, with the grains; the best should be selected for seed to secure a continuation of good crops. A half-century ago, our most successful farmers were in the practice of selecting their seed at harvest time; the rye, barley and oats were winnowed on the barn-floor, and the seed for the coming year was taken from the head of the heap, because the grain was heavier, as they said, while those who took their seed from the tail of the heap, had to come to their wiser neighbors every few years for seed, saying "that their seed had run out." There was one man in particular, who selected his seed corn in his field, and at harvest time, having regard to the earliest ripe and the most perfect ears. Another man came to reside in his neighborhood and procured seed corn of this man, and adopted his manner of selecting it, which he continued with good success, so that in unfavorable seasons, when corn in many fields failed to ripen, and many procured seed from the North, this man continued to raise good crops from his own seed, and remarked that the good would perpetuate itself if properly nourished and cared for.

The same may be said in relation to garden vegetables. If proper attention were paid to the selection of seeds, we should not hear the complaints that we often do, that "the beans are late and all at the top of the poles," and the cucumbers all run to vines, or that the seed has "run out." E. S.

Somerset, Mass.

INJURY TO THE WHEAT CROP.

The heavy rains of the past fortnight are reported to have done great injury to the wheat crop in New York and Michigan. In many fields the grain is said to be sprouting in the field, and in some instances to have grown so badly as to be spoiled. The damage, however, is probably over-estimated. The following paragraphs from the *New York Tribune*, give some facts in the case which are of interest, and which show that there is but little real cause for alarm:—

"Let us look at the prospect fairly. There is no disputing the fact that in all the wheat region north of lat. 41 degrees the wheat, either cut or uncut, is badly sprouted. How great the damage is it is difficult to determine, as farmers have no precedent to judge by, not having had such a season for several years. Indeed, we remember only one—it was in the year 1836, though the worst of wet weather came somewhat later.

"That year the wheat was mostly cut, and in shocks in the field or in stacks. In the great wheat regions of Ohio, Indiana and Illinois, the farmers quite generally declared the crop to be totally ruined. In some fields it did look so, for when it was uncut the yellow heads assumed a green shade, and the shocks and stalks became as green on the surface as the adjoining pastures. In due time, however, the raining period was over, the sprouts died, the standing grain was cut, the shocks stacked or threshed; the stacks lost their bright yellow hue and stood a rusty-looking mass of dry, weather-beaten straw; and yet—mark the result—the wheat inside was as bright and sound as ever. So slight was the injury that it was hardly perceptible in the final result. The shocks and standing grain were more injured, but not ten per cent. of the grain was destroyed.

"When wheat is sprouted, a good winnowing machine will remove most of the injured kernels, which make excellent feed for animals. If there be a predominance of sprouted grains in the grist that goes to mill, it is not spoiled for food; it is only spoiled for light bread. The dough, instead of rising by the ordinary process, has a tendency to liquify and spread out and form a sticking mass, that will not be kneaded into loaves. It makes good unleavened bread, and is quite nutritious, with a sweetish taste. By many persons, bread made of sprouted wheat is preferred, but in market the least appearance of grown kernels will injure the sale. Some millers even contend that one per cent. of such kernels will injure the quality of the whole. It is therefore important to the farmer that he should be very careful to keep the sprouted sheaves separate from the sound, and should also separate the sound from the unsound grain in winnowing, as far as possible.

The injury of rain upon wheat is quite over-rated in this country, because we are not well used to it—our harvest weather being usually so fine that the straw retains its golden brightness till it has been threshed. Not so in England. There the rains are often so incessant that sprouted wheat is very common, and the business of shocking or stacking the sheaves is an art that commands higher wages than reaping. There the stacks are always thatched to preserve them from sprouting on the outside, and often built hollow to dry them on the inside. In this country we are much more careless. Our wheat is often exposed to complete soakings. Much of that grown in the West is threshed on the ground, and often lies in a pile through a long rain, and if a warm one, some of the outside grains are sprouted, but the inside of the pile is uninjured.

"The Danubian wheat boats are without roofs; the grain is piled up in a heap rounded on top, and exposed to all the rains that fall during a long voyage. If the weather be warm, the outside grows and mats together some inches deep, and that protects the remainder. The worst of the sprouted part is only fit for beasts, while that but slightly sprouted sells as food for man, and that below the wetted crust is fit for shipment to France or England.

"We have no doubt that the grain is injured by the present wet spell, but it is not 'utterly ruinous.' We may doubt whether farmers do not gain more in other crops than they will lose in wheat by the rains. Meantime let us console ourselves that we are not likely to be destitute of wheat. A trustworthy writer makes an estimate 'that Ohio will yield the present season twenty-two millions of bushels; Illinois, eighteen millions; Wisconsin, ten millions; and Pennsylvania twenty millions.' There is no prospect of a famine."

ONE BY ONE.

One by one the sands are flowing,
  One by one the moments fall;
Some are coming, some are going,
  Do not strive to grasp them all.

One by one thy duties wait thee,
  Let thy whole strength go to each;
Let no future dreams elate thee,
  Learn thou first what these can teach.

One by one (bright gifts from Heaven)
  Joys are sent thee here below;
Take them readily when given,
  Ready too to let them go.

One by one thy griefs shall meet thee,
  Do not fear an armed band;
One will fade as others greet thee,
  Shadows passing through the land.

Do not look at life's long sorrow;
  See how small each moment's pain;
God will help thee for to-morrow,
  Every day begin again.

Every hour that fleets so slowly,
  Has its task to do or bear;
Luminous the crown, and holy,
  If thou set each gem with care.

Do not linger with regretting,
  Or for passing hours despond;
Nor, thy daily toil forgetting,
  Look too eagerly beyond.

Hours are golden links, God's token,
  Reaching Heaven; but one by one
Take them, lest the chain be broken
  Ere the pilgrimage be done.

Household Words.

RECIPE FOR FLOATING.—Any human being who will have the presence of mind to clasp the hands behind the back, and *turn the face toward the zenith*, may float in tolerably still water—ay, and *sleep* there, no matter how long. If not knowing how to swim, you would escape drowning when you find yourself in deep water, you have only to consider yourself an empty pitcher—let your mouth and nose, not the *top* of your heavy head be the highest part of you, and you are safe. But thrust up one of your bony hands and down you go; turning up the handle tips over the pitcher. Having had the happiness to prevent one or two from drowning by this simple instruction, we publish it for the benefit of all who either *love* aquatic sports or *dread* them.

BOSTON VETERINARY INSTITUE.

The Legislature of Massachusetts at its last session granted a charter for the establishment of an institution for the advancement of veterinary knowledge, subject to the statute regulations pertaining to other universities in the Commonwealth. An organization under the charter has been effected by the choice of the following officers:—William S. King, Chairman of the corporation; John P. Jewett, Treasurer; C. L. Flint, Secretary; D. D. Slade, President of the Institute; George H. Dadd, Professor of Anatomy and Physiology; Charles M. Wood, Professor of Theory and Practice; Robert Wood, Professor of Cattle Pathology, with a Board of Examiners and References from various sections of the country.

The first session of the Institute will commence on the first Monday in November, and continue four months. Tickets for a full course, $75, including the privilege of a course at Harvard University Medical College, on Pathological Anatomy and on Chemistry.

LECTURES OF THE FACULTY.—The Professor of Anatomy and Physiology will lecture on the various tissues, organs and structures of the body of the Horse; demonstrating at the same time their mechanical and vital properties, their adaptation, design and functions; their position, dimensions, connection and organization; which will be illustrated by means of the French model, skeletons, diagrams, and by wet and dry preparations; an extensive collection of which has been secured.

The Professor of Theory and Practice will lecture on the general principles of Therapeutics and Pathology, and on the history and treatment of diseases of the horse. He will describe the various remedies used; point out their medicinal properties; and mode of administration.

The Professor of Cattle Pathology will lecture on the various diseases of Neat Stock; the treatment of the same; and the remedies best adapted to their peculiar organizations.

Clinical lectures will occasionally be given by the Faculty on cases that occur in their practice. In fact, every arrangement will be made to secure a thorough and scientific course of instruction.

CONDITIONS OF GRADUATION.—1. The course of instruction shall occupy a period of three years.

2. Each candidate shall furnish evidence that he is twenty-one years old.

3. He shall have attended two full courses of Lectures; one of which, however, may take place in any other incorporated university.

4. He shall satisfy the Faculty that he has had the advantages of a common school education.

5. He shall furnish satisfactory proof that he has been engaged in the study of medicine during a period not less than twelve months, under the direction of a medical practioner, whose certificate will be considered satisfactory proof of the fact.

6. The candidate for examination shall, previous to the time appointed, notify the Dean of his intention, and furnish the documentary evidence of his term of study, tickets to Lectures, &c.

The candidate having complied with the preceding regulations, shall, on the day appointed, be examined by the Faculty and board of examination, on the various branches of Veterinary Science. At the close of such examination, the decision of the Faculty and examiners shall be declared; if favorable, it shall be recorded by the Dean, and the several candidates are then entitled to the degree of V. S., and shall be furnished with a Diploma bearing the seal of the Institute and the signatures of the President, Faculty, and Examiners. Should the decision be unfavorable, the candidate must qualify himself in whatever branch he appears to be deficient, and present himself for re-examination at such time as the Faculty shall direct.—*Granite Farmer.*

For the New England Farmer.

SEEDING DOWN TO GRASS WITH TURNIPS.

MR. EDITOR:—As it is now settled beyond a doubt that we shall get a light crop of hay, I propose to my brother farmers a way to supply the deficiency, in part, that is not generally practiced, and is, withal, cheap, which is an important consideration, in these times. Now for the way: take a piece of moist land that needs seeding to grass, obtain Ruggles, Nourse, Mason & Co.'s Eagle No. 1 plow, (or any other good pattern, same size,) and guage it to run 5½ to 6 inches in depth and turn flat. After plowing what you wish, or have manure to dress, mark off with plow or chain into square rods, and spread twenty-seven ox loads (6 squares to a load goes 162 rods) of compost to the acre, two loads of which should be equal to one of best barn-yard manure, and with harrow or cultivator mix it thoroughly with the up-turned sod. To every acre of land sow one peck of herds-grass, one bushel of red-top and two ounces of flat turnip seed, and mix all thoroughly together before sowing; after which roll or brush the seed in. For the last five years I have plowed with a small plow from 5½ to 6 inches in depth, with two horses or one pair of cattle alone, instead of four cattle, and a great plow running 9 to 10 inches, and a driver, &c. My grass seed comes up quick, holds in longer, and I obtain a greater quantity of hay than I did upon land of same quality, with more manure and more labor, expense and trouble, in preparing the same for seed.

This, I know, is not the theory of most *writing* farmers, was not the theory of my earlier efforts at farming, but is the result of a practical demonstration of its working, so far as my land in concerned.

The land prepared as above, if sown before the 10th of next month, will yield from 75 to 125 bushels of turnips to the acre, sufficient to pay all expense, and as it is no injury to the grass that is to come after, it is surprising that they are not more generally cultivated. H.

Concord, July 28, 1855.

FARMERS' HIGH SCHOOL IN PENNSYLVANIA.—We learn from the *Repository and Whig*, that provision is being made for the organization and management of a Farmers' High School in Pennsylvania, in accordance with an act of incorporation, recently passed by the Legislature of that State. The Trustees are empowered to make choice of a suitable location, embracing not less than two hundred nor more than two thousand acres; and also to choose a principal and other officers and assistants of suitable practical and scientific attainments, as well as make whatever arrangements the nature of the Institute may require. The State Agricultural Society is authorized to appropriate any sum, not exceeding ten thousand dollars, whenever the school may require it; and also to make annual appropriations, according to the extent of its resources. Already liberal donations of land have been proffered by gentlemen in different parts of the State, and other lands offered at reduced prices.—*American Agriculturist.*

EXTRACTS AND REPLIES.

COCK'S-FOOT THORN.

Enclosed you will find the leaf, flower and a spine of a species of thorn, which I think would make a valuable hedge plant, as it grows spontaneously on a variety of soils, makes a thick growth, and is covered with an abundance of formidable spines. Either this species of thorn is not described in Mrs. Lincoln's Botany, or my limited knowledge of the subject prevents me from identifying it; and you will much oblige several of your readers by giving its botanical name, if you receive the flowers in a condition to ascertain it. And if you are already acquainted with it, will you inform us whether it has ever been tried as a hedge plant.

The fruit is about half an inch in diameter, very much resembling a small red apple, and is borne in such profusion as to give a red color to the whole tree at a distance. In its natural state, the tree grows from ten to fifteen feet high.

Ashfield, 1855. Wm. F. Bassett.

Remarks.—The plant spoken of is the *Cratagus Crus-galli,* or *Cock's-foot thorn.* Thorny, leaves wedge obovate, subsessile, shining, leathery, corymbs compound; leaflets of the calyx lanceolate sub-serrate. We have never known it used as a hedge plant, but think it would answer the purpose well.

APPLE SEEDS.

How long do apple seeds retain their vitality? Where can a bushel of them be purchased, and what is the cost per bushel? M. M. J.

Hillsboro' Bridge, N. H.

Remarks.—We presume there is no limit to the duration of vitality in seeds of all kinds, if they are always preserved in proper condition. It is commonly said that parsnip seed will not come if more than one year old; yet we have sown when three years old, and it came well. It has been satisfactorily proved that wheat taken from the body of an Egyptian mummy, where it had been deposited for *three thousand years,* germinated, and grew as readily as though it had been there but one year. It was in a condition to keep it in a perfect state—neither so dry as to shrivel it too much, nor so moist and warm as to excite it to germination. If this be so, the vitality of seeds depends upon the condition in which they are kept.

A year or two since, we plowed a portion of a pasture which had been fed continuously for twenty-five years, and upon and around which there had been scarcely a mullein to be seen. Yet with the grass that came, there was such a crop of mulleins, scattered over the pasture, as we never saw before. How long had the seed remained there, inert, in the soil? And how long would it, probably, have continued, had the pasture remained unplowed?

Experienced nurserymen, however, tell us that apple seed cannot safely be relied on after the first year, though we do not know that the experiment has ever been fairly tried, of keeping the seed with particular care for the purpose of planting.

Apple seed may be obtained, at the proper season, at most of our seed stores, and are worth about twenty dollars per bushel.

A CHEAP FENCE.

I have a 14 acre lot to fence, and would like to know what kind of a fence would be the cheapest and most durable. I should like to have a hedge fence, if they did not cost too much. Please send me word what kind of hedging would be the best, and what it will cost per rod at the nursery. Please answer the above questions through your valuable paper, the reading of which has induced me to buy the above little farm. A Beginner.

Amesbury Mills, Mass., 1855.

Remarks.—In a location as long settled as Amesbury, and where timber is probably scarce and high, we believe a wire fence may be constructed at a less cost than any other, and will last a lifetime. Use No. 6 wire of the best kind. Set a post 6 or 8 inches square, 5 feet into the ground, at each corner, and brace well; then bore the holes for the wires to pass through so close together as to bring the wires near enough to keep out whatever is to come against it.

BARREN QUINCE TREES.

I have a number of quince trees, seven or eight years old, and they have blossomed every year for four years, and I have no fruit. They are of good size and growth. Now I wish to know the cause of this; and how they may be made to fruit.

Holliston, July, 1855. C. G. W.

Remarks.—Cannot tell you—we have some in the same condition. Does any one know? If so, we trust he will reply.

THE DUTY OF BEING CLEAN.

The care of the person is the beginning of good manners. Every one not only consults his own well being, his dignity, and employment, by his care of himself, but he also fulfills a social duty.—Every one should do the best he can for himself, for his own sake, and to avoid giving pain to, or to promote the happiness of others.

We enter here upon delicate ground; but the reader will see its necessity, and excuse our plainness of speech. We must run the risk of exciting a feeling of disgust in some readers, that we may give to others the instruction they need.

The first moral and physical duty of human being *is to be clean.* Cleanliness, the apostle says, is akin to godliness. We would not give much for the godliness of any man or woman who was not cleanly. Filth is a violation of the rights of several of the senses. We see it; we feel it; sometimes we may be cheated into tasting it; and we smell it terribly. In all ways, and under all conditions, it is vile and bad, ill-mannered and immoral.

First of all, then, and above all, and as the prime condition of all excellence of character and beauty of life, O, be thoroughly and perfectly clean! The human organism is so constituted that no person can be absolutely clean without washing the whole surface of the body every day. Millions of pores are constantly exuding waste matter from the body. This matter, if allowed to remain, is filth; in any considerable quantity it is poison. Retained in the system, it is matter of disease, and is the efficient cause of typhus and similar diseases.

It is not enough to change the under garments often. Much is carried away, but much also adheres. In certain parts of the body, as under the arms and on the feet, it collects rapidly, and in a few hours has an offensive odor.

Cleanly persons have acute senses. I know ladies who can tell whether a person bathes daily the moment he comes into the room. Many an expensively dressed man scents a parlor as soon as he enters it, with the disgusting odor of his unwashed feet and gathered perspiration. We smell it everywhere—at theatres and balls, in steamboat cabins and omnibuses; everywhere we meet this mortifying and disgusting fact of personal uncleanliness.

It is mixed with tobacco, it is mingled with perfumes; but these do not help it. The execrable filth is there, poisoning the atmosphere. The wise Swedenborg tells us that the wicked love the scent of their own hells. People, whose senses are blunted by custom, are unconscious of their personal conditions, but they are always liable to meet those to whom their lack of the first decency of life is a violent breach of good manners.

Ladies, it is a pity that one should be obliged to write and print so impolite a thing, but it is true that you are not always careful enough of the purity of your clothing. You may be nice in your persons —for the honor of all womanhood I hope so—but I have met women of beauty and accomplishment who dressed with great elegance, but when they came near a fire in a cold day, there rose from them odors that were not wafted from "Araby the blest."

The English papers call their "lower orders" the "great unwashed." The circulation of works on water-cure has done much for the cause of cleanliness in this country; but it is to be feared that there are here, as well as in Europe, vast numbers who merit this designation.—*Illustrated Manners Book.*

For the New England Farmer.

MOWING MACHINE.

EDITOR OF N. E. FARMER:—SIR,—Recent experiments, in the use of mowing machines, have demonstrated that one machine, well harnessed and directed, will cut ten acres of grass, containing more than one ton to the acre, in as many successive hours. This shows that the labor of cutting the grass can be performed, for about fifty cents per ton—less than one-half the expense of cutting in the ordinary way by scythes. All that is wanted now is, that they be made in a faithful manner of good material, and they will inevitably come into general use on extended farms. I am not prepared to say, what kind of machine is entitled to preference—though from what I have seen I think there is a decided preference in the *cutting principle* applied to different machines. There is much reason for complaint of the bad material and bad finish of the machines. Respectfully yours,

July 20, 1855. ESSEX.

TOADS.

[BUFO VULGARIS.]

MR. BROWN:—Permit me to give your readers a short chapter on Toads.

From the earliest recollection of the "oldest inhabitants," this little creature has been under the ban, a source of terror to every little Miss, an object of disgust to maids and matrons, a by-word and term of reproach for every old aunt and grandma, in the land, who would never seek farther in their vocabulary of opprobious terms for a suitable name for any little urchin, than to call him a "little nasty *toad.*" Boys have made it their sport, have pelted it with stones, pierced it through and through with sharp sticks, substituted it in the place of a ball, upon a bat board, throwing it high into the air, and exulting in its torture; and even men in the field, hoeing their crops, have been wont to rudely thrust it aside with their hoes, as a useless reptile, wondering for what purpose such a loathsome object could have been created. The Toad has been accused of being a venomous reptile, a fit object of dread, a poisoner of choice garden plants, deserving banishment from every one's premises, and fit only to inhabit an *uninhabitable* morass or desert. The toad has, however, occasionally been brought into respectable notice by curiosity hunters, and newspaper paragraph writers, whenever he has chanced to have been found in a torpid state in the cavity of a rock, or in the trunk of a tree, in which cases, an antiquity has been ascribed to it equal to that of Egyptian Mummies, or perhaps set down as of antediluvian origin. In this manner poor toady has gone the rounds of newspaper notoriety, not for any merit of value it might have possessed, but as a matter of mere curiosity. But this poor and despised creature has not been left entirely friendless, nor without an advocate.

Naturalists have placed him in the scale of usefulness where he belongs, and have shown that he is not deserving the very many opprobriums that have been heaped upon him.

To the gardener the toad is a very useful assistant, as it devours a great number of insects and worms that prey upon the plants. In the dark of the evening, the toad comes forth from his hiding place, and commences its work of extermination. Noiselessly it passes through the garden, regaling itself upon the insects that have just begun their nocturnal work upon the tender plants. No one but those who have observed the movements of this little animal, can form any correct estimate of its usefulness. A few evenings since, I watched one a short time, and observed that in the space of fifteen minutes, it devoured some fifteen or twenty insects, of that class too, that in the day time, lie concealed from the observations of the birds, but at night go forth in armies to carry on their work of destruction, to lay waste the gardener's toil. It would be a matter of economy for those who till the ground, to provide the toad with a suitable place for retreat in the day time, thus virtually saying to him: "my dear little fellow, I value your services, and will do all I can for your comfort."

With a proper appreciation for his services, and care for his preservation, the toad will become quite domesticated, and will continue his valuable work, for years, simply for his "board and lodging." Those who wantonly destroy the toad, should be classed with those who kill harmless and useful birds.

Some years ago a family in Braceville, Trumbull county, observed one day, in the hall of the house, a large toad, leaping along in an orderly and moderate way towards the dining-room door. It entered the room and took a circuit around, then stationed itself between the door and a window, and sat there all day; whenever a fly came near enough he would catch it, and as this was quite often, the work of extermination went on bravely; sometimes he would spring up a foot or more for a fly upon the wall. At sundown he went out to enjoy the refreshing coolness of the evening, and probably the society of his kindred. The next day, to the surprise of the family, he came in and took the same place by the door, and so continued to do during the whole summer. The family whose premises were so unceremoniously occupied, being aware of the useful and harmless nature of their visitor, and being curious to learn its habits, allowed it to remain. Thus the toad carried on the war against the flies, until autumn, when they, having become greatly reduced in numbers, and it being difficult for him any longer to obtain supplies by forage, he concluded to go into "winter quarters." Immediately on the opening of the spring campaign, however, he was at his old post. His message to the flies, as near as can be ascertained, was, "Come, and I'll take you;" they came, were seen, and were swallowed. The enemy being immensely numerous, the war was carried on in the same way, and in the same place, for *six years*, the toad meanwhile having grown strong and increased in stature, and having regularly spent every night in skylarking.

He was *cool* and prompt in action, and moreover a very *slippery* antagonist; whenever anything was said to him by any person passing his stand, his eyes would twinkle in a very pleasant way. The only weapon he ever used was his tongue, which was very long and rough. The human tongue is known to be an exceedingly formidable weapon, but no one has been known to be swallowed outright by its means, though a great many have been *taken in*.

Sometimes a fly would light within a foot of toady, and sit rubbing its miraculous little feet with great delight apparently, when the toad, imitating the notorious Jeffreys, would "give him a lick with the rough side of his tongue," and the poor fly would be condemned and executed instantly.

In one respect, however, the immortal Jeffreys had the advantage of the toad, for he could "smell a puritan a mile off," he said, while the toad had no sense of smell apparently, but was in point of practice *all tongue*.—*Ohio Farmer.*

THE PRICE OF WHEAT.—*Hunt's Merchants' Magazine* publishes a table of the price of wheat at Albany, on the first day of January for sixty-one years. It is from the minutes kept at the office of the Van Rensselaer Manor, at Albany, where large amounts of rent are payable in wheat, or a cash equivalent, on the first of January each year; and as two parties are deeply interested in the price, it is probably the most reliably correct of any record that can be obtained. The list commences in 1793, when the price was 75 cents a bushel—only five times in the sixty-one years wheat has been $2 or upward, per bushel, while it was seventeen times at $1 or under—twice at seventy-five cents. Only once in thirty-seven years, that is since 1817, to wit in 1837, has it reached $2. The average price for the whole period is $1 38. For the last 30 years it is $1 25.

ECONOMIC CULTIVATION.

We have repeatedly seated ourselves with the intent of writing upon the best mode of cultivating the various crops, and almost as often have we actually had our attention turned to and written upon some other topic. The reason is this: No one, except the favored few who have all the means at command needful in carrying out their plans of farm operations, can do half as well as they know how to do. Their land is poor, and they have not the means of enriching it. Tell a man that a purse full of gold is only an inch beyond his utmost reach, and you do him no good but to excite feelings of discontent and envy, and even lead him to forego certain improvements which are within his reach, because they pay so little compared with what he is really anxious but unable to do. Poverty is a terrible burden, and nowhere is it felt more than among intelligent farmers.

Notwithstanding these difficulties, we would now urge this class of farmers, first, to expend their labor and their fertilizers upon a much smaller quantity of land than is usually done, Instead of planting five acres of corn, plant two, or even one; and plow and cultivate this small field to the entire neglect, if need be, of other acres. If those lie fallow it will be useful to the soil, and at least no money will be wasted upon them.

We say to such farmers, in the second place, you can do more than you have done in the preparation of various composts. There are very few farmers who can not double and treble the quantity and value of these necessary means of restoring vigor to worn-out and barren soils. By diminishing the extent of surface under cultivation, and by proper industry in preparing composts, there is scarcely a farm in the country that can not be made to produce its sixty, and seventy, and eighty bushels of corn to the acre. And even though one acre only is brought up to this desirable condition, a series of years will suffice to bring the whole farm to a high state of cultivation. If only small fields are made thus productive, the hopes and courage of the farmer will be thereby excited, and he will stand up manfully among men, and tell of his success as well as they.

We would NOT advise farmers of *limited means* to buy guano nor phosphates at anything like their present prices. Pay your poorer neighbor his six or eight shillings a day (if you cannot *exchange* work with him) to help you collect leaves from the forest, mud from the meadow, carting the latter only after it is tolerably dry, peat or marl from the bog; and if you can buy barn-yard manures, mix them with turfs, sods, roots, weeds, dirty straw, spoilt hay, chips that are unfit to burn; and if you are conveniently situated for it, get sea-weeds from the sea-shore, oyster shells, old bones, horns, etc., etc. Dead animals are of great value. The offal from a slaughter-house, worthless scraps of hides, BONES, etc., etc., should be used only with large quantities of common soil, or of some other solvent. Not one in a hundred turns to the best account the contents of privies, hog-pens, soap-suds, and other kinds of waste.

Pardon us for asking why will you tax yourselves so severely by neglecting any of these modes of improving your lands? It may be only such neglect that keeps you in poverty; and though you enter upon the work with many painful doubts in relation to the result, we will assure you against loss from any such operations, if conducted with tolerable discretion.

Now is the time to commence this system of operation for the next year. On every leisure day, let the time be occupied in these preparatory labors. Every hour thus spent is worth something, and will tend to fill your purse at the time of harvest.

Almost all farmers sadly neglect their barn-yard manures. Were these properly cared for, their value, as a whole, would be more than double.

Having thus suggested the means by which manures may be provided, the next inquiry is, how and where shall they be used? Perhaps we are unable to give the information that many would desire, for reasons suggested in the last number. Perhaps you have an enclosure that for many years produced very large crops, and you just looked on and watched your opportunity to take from it the most you could get, returning nothing to it. It may be that it is so situated that it is almost able to take care of itself, like much of the interval on the Connecticut, which is annually enriched by being overflowed. If this is so, we should labor to hasten this process of improvement, and should do all in our power to get this soil back into the condition of a fertile field. When this is accomplished, take the next promising lot, leaving the more desperate cases to the last. When you plow your clayey grounds, fill in, without stint, a sandy compost. If the field is sandy, plow in a clay compost. This need not be a costly job, but generally is practicable for the poorest farmer. If you have a boggy meadow, a thorough ditching will be a part of the process necessary in reclaiming it, while the material thus thrown out is exactly what some other soil most needs. Compensations are not found only in the structures of animals, but they occur in almost every farm the world over.—*The Plough, Loom and Anvil.*

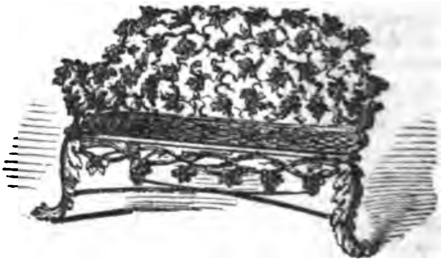
GALLS ON HORSES.

Mr. Editor:—I have noticed lately in several agricultural papers remedies suggested for galls on horses. Canal horses are more cruelly galled than horses in any other service. Generally they lie idle during the winter season. To a considerable extent, also, the horses of the farmer are but little used during the winter, especially when more than one span is employed on the farm. Ordinarily a single pair is well fed on grain so as to do the chief portion of the winter work, and the rest are kept at a cheaper rate, and do little or no work until spring. The result is, the breast and back of horses thus idle become tender, and when the hard work of spring commences, and the weather is warm and the animal sweats freely, the skin being tender is scalded, and then galled.

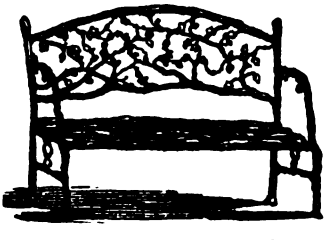
Now, prevention is better than cure. A cooling application, that will toughen the skin before use, and prevent inflammatory action when used, is what is needed for the work horse. From long experience, I have found these results to follow the use of spirits saturated with alum. I keep a bottle of alum and whiskey in the stable, and bathe the part pressed by the hames, or breast-collar, and also the back, for several days, before the horses commence their spring work, and also along through the season occasionally, when there is special danger of scalding the breast. I have thus passed entire seasons, employing constantly not less than five horse teams in farming uses, and have not lost the service of a horse a single day, for years together, on account of sore back or breast. This remedy will enable a sore to heal, although the animal continues in constant use.

Now the remedy I have seen most frequently and highly recommended is the application of white lead, in some form or other, to the injured part. I have at an early period tried this remedy—have used it when I knew nothing better—but dislike it much. It answers the purpose, I acknowledge,—makes a hard, tough scab or incrustation on the sore, likely to terminate in a white spot, if the hair ever grows. But I consider this tanning the skin into leather, while on the horse's carcass, to be a *tough* business, to say the least.—*Wool Grower.*

IRON SETTEES FOR PIAZZAS AND GARDENS.



The first engraving represents a fancy pattern Settee for Piazzas; there are a variety of sizes and patterns, some very heavy and rich; the second, represents a Rustic Settee for gardens; there are two sizes, designed for two or three persons. These Settees are for sale by Ruggles, Nourse, Mason & Co., Quincy Hall.



☞ Butter is selling in different parts of Ohio at from 10 to 13 cents; cheese 6 to 8 cents; and eggs 8 to 10 cents.

For the New England Farmer.

WASHINGTON AS AN AGRICULTURIST.

BY FREDERICK HOLBROOK.

We might almost say that the wealth of our language has been exhausted, in the many efforts which have been made delineating those qualities of goodness and greatness which formed the character of Washington; and yet we all feel that his merits and virtues have not been overstated, that he is the peculiar ornament of human nature, and by universal consent, "the father of his country." He has perhaps been most commonly viewed in the light of his military and civil services; but an examination of his habits and sentiments as connected with farming, whether in a public or private character, shows him in quite another light, and in this view we feel that he is entitled to the peculiar regard of the agricultural community.

A friend recently sent me a volume of Washington's letters to Sir John Sinclair, of England,—the perusal of which led me to realize more fully than ever before the great predilections of their illustrious author for the pursuits of agriculture, and his practical acquaintance with its principles; and induced me to examine other publications within reach, which disclose his connection with the subject. The volume of letters to Sinclair contains about fifty pages in quarto or letter-sheet form, the contents being engraved from the original letters, so as to be an exact fac simile of Washington's handwriting. They represent a very round, full and legible hand, read with entire ease at first sight. The letters are models of a good epistolary style of composition, expressing the views of the author with eminent propriety, discrimination and sound sense, and disclosing an intimate knowledge of the subjects discussed. They are particularly honorable to the author, as coming from him while chief magistrate of the United States, at a time when everything connected with the administration of the government was new and untried, and to be wrought out and established without the aid of precedent, making his public labors most arduous and incessant; and when most other public men would have found no time for such a correspondence, or would perhaps have deemed the subjects discussed beneath their notice.

When Washington assumed command of the army, he committed the care of his estates to a relative in whom he reposed special confidence. He gave full and minute directions for the conduct of the farming, taking away with him drawings and charts of each farm and subdivided field, and leaving duplicates with his superintendent, so that in future correspondence particular references might be made to any portions of the estates, and be readily understood by both parties. In the midst of the most stirring and eventful scenes of the war, his mind constantly reverted to his farms at Mount Vernon; and he kept up a frequent and systematic correspondence with his superintendent, giving the most particular directions about the farming, and requiring, in return, full and regular reports of operations, of the condition of the laborers and the stock, the products raised, expenses incurred, and other matters of interest.

At the close of the war, and immediately on resigning his commission in the army, he returned to Mount Vernon, with the determination to pass the remainder of life in rural occupations and enjoyments. He at once engaged most zealously in the improvement of his farming and his breeds of domestic animals; in fitting up the farm-buildings; adorning the grounds around the mansion-house with trees and shrubs, and by laying out tasteful walks; arranging anew the vegetable garden; pruning and training the orchards with his own hands; replenishing the orchards, gardens and green-houses with new and rare varieties of trees, vegetables, shrubs, and flowering plants, procured in this and foreign countries. Through his correspondents in Great Britain, he obtained skilful gardeners and farmers to assist him; also through those correspondents came new and desirable field and other seeds, farm implements and tools for conducting his operations—the country being then too young to furnish such helps; also, from the same source, the works of the best British writers on agriculture, which he attentively studied, drawing from them such principles as could be advantageously applied in his farming, and which his eminently sagacious mind knew how to draw out and reduce to practice. It was his habit to rise early, despatch necessary letters before breakfast, and that meal finished, to mount his horse and ride over the farms, giving directions for the operations of the day. He kept a diary for several years, in which was noted the kind and quantity of work done each day on the farms; the times of planting or sowing the fields; of gathering the crops; the expenses of cultivating, and the product of each crop, with the balance for or against each field in a given year; and every other circumstance which would enable him to draw useful conclusions about the details of cultivation and to enlarge his knowledge of farming by experience. He engaged in correspondence upon agricultural topics with men in this country and Great Britain, distinguished by their knowledge of such matters, as well as entertained many such at his house; and his thoughts never flowed more enthusiastically, nor his pen more forcibly and practically, than when writing on these subjects, speaking of his fondness for agricultural pursuits, and of their claims not only upon the intelligent citizen, but upon the statesman and patriot.

In these, to him, delightful occupations, he fondly hoped to pass the remnant of his life. Writing to Lafayette during this period, he remarks:—"I am become a private citizen on the banks of the Potomac; and under the shadow of my own vine and my own fig-tree, free from the bustle of a camp, and the busy scenes of public life, I am solacing myself with those tranquil enjoyments, of which the soldier, who is ever in pursuit of fame, the statesman, whose watchful days and sleepless nights are spent in devising schemes to promote the welfare of his own, perhaps the ruin of other countries, as if this globe were insufficient for us all, and the courtier, who is always watching the countenance of his prince, in hopes of catching a gracious smile, can have very little conception. I have not only retired from all public employments, but I am retiring within myself, and shall be able to view the solitary walk, and tread the paths of private life, with a heartfelt satisfaction. Envious of none, I am determined to be pleased with all; and this, my dear friend, being the order of my march, I will move gently down the stream of life, until I sleep with my fathers."

The Mount Vernon estates consisted of five farms—Mansion House Farm; Union Farm; Dogue Run Farm; Muddy Hole Farm, and River Farm;—containing in all over 3500 acres of arable land, besides large tracts of woodland. Washington employed his talent as a practical surveyor in dividing these farms into regular fields, which were all numbered, and their area of acres ascertained.

Field-books were prepared, in which with his own hands, were placed nicely-drawn plans and charts of the farms and their subdivision into fields. He carefully studied a rotation of crops best adapted to his lands, and varying on the different farms and fields of a farm, to suit their respective peculiarities of soil; and by various practical trials and observation of results, at length established a system of cropping which was adhered to, with but slight variations, through life. Tables were prepared of the rotation of crops to be practiced on each field, and showing what particular crop was to be cultivated on a given field for years ahead; underneath the table of crops, was another stating the probable average time necessary for plowing, harrowing, planting and sowing, the cost of after cultivation, of harvesting; then below an estimate of the probable average product, and the proceeds above the cost of each crop; and a note at the foot of the page, explained briefly wherein that particular rotation of crops was best adapted to the field on which it was practiced. He availed himself of every means at command for increasing the quantity of manures, by raising rich mud from the bed of creeks running through the estates, by digging mud from the swamps and marshy places, by the gathering of leaves and all waste vegetable substances, carrying the materials to the yards and pens to be mingled with the manure. He also experimented with various green crops, plowed under for fertilizing the land, and established the practice of plowing in two crops of buckwheat in one season, turning them down when in blossom, and sowing wheat on the land in the fall.

Washington's agricultural correspondence during the period of retirement after the close of the war is very interesting, and shows the ardor with which he engaged in farming. My limits will not allow me to go much into this view of him, but I cannot forbear showing a little of it.

In a letter to a friend, Sept. 20, 1785, he remarks, "that he has long been convinced that the bed of the Potomac before his door contains an inexhaustible fund of manure; and that if he could adopt an easy, simple and expeditious method of raising and taking it to the land, it might be converted to useful purposes." He then inquires with particularity about a machine recently invented, which his friend knows all about, and which he thinks may be adapted to his purpose for raising the mud into scows, in which it could be floated to the shore.

He frequently corresponds with Arthur Young, of England, who had kindly offered to supply him with men for his farming and gardening, with cattle, implements and tools, seeds and books, or anything else that might contribute to his wants and his rural amusements. Washington often remarks to his correspondent, upon the satisfaction he derives from his pursuits at Mount Vernon, and generally requests seeds, books and implements to be sent to him. In one letter he orders two plows of the most approved construction, and suitable for two horses, and remarks that he has been using the Rotherham patent plow from England, and likes it much; he also orders a great variety of seeds, and inquires for suitable English and Scotch farmers to manage his laborers and stock at Mount Vernon; also desires from Mr. Young a plan of the most complete and useful farm-yard, comprehending barns and every appurtenance with which he is familiar. In a subsequent letter acknowledging receipt of the articles ordered, he remarks "that the plows have been tried and are satisfactory, and that the plan of a farm-yard and buildings sent is an excellent one, and he is already preparing materials to build agreeable to the plan." He further remarks upon the need of improvement in the farming in Virginia, and thinks that the system of husbandry which has been found so beneficial in Great Britain, and which must have been greatly promoted by Mr. Young's "Annals of Agriculture," is gaining ground around him; and states that there are several, among whom he classes himself, who are endeavoring to get into a regular and systematic course of manuring and cropping, and hopes that in a few years more they will "make a more respectable figure as farmers than they have hitherto done."

To Wm. Strickland, of England, he remarks: "The agriculture of this country is indeed low; and the primary cause of its being so is, that instead of improving a little ground well, we attempt too much and do it ill. A half, a third, or even a fourth of what we mangle, well wrought and properly dressed, would produce more than the whole under our system of management.

In a letter to Sir John Sinclair, the drift of which is to show what improvements may be made in stock in this country by proper care and feeding, he states that after the Peace of Paris in 1783, and his return to farming, he paid particular attention to the improvement of his sheep, (of which he usually kept from seven to eight hundred;) that by this attention, at the shearing of 1789, the fleeces had increased from 2¾ lbs. to the average quantity of 5¼ lbs. of wool—a fleece of which, promiscuously taken, he sent to Arthur Young, who put it into the hands of manufacturers for examination, and they pronounced it equal in quality to the Kentish wool. He then goes on to cite instances of greatly increased weight of beef cattle, by means of attention to breeding and to pastures.

When called to assume the office of President of the United States, he frequently alludes in correspondence to the conflict his mind endured in deciding to leave his delightful employments at Mount Vernon, to launch again upon the labors and anxieties of public life. In his Inaugural Speech to Congress; he feelingly says: "I was summoned by my country, whose voice I can never hear but with veneration and love, from a retreat which I had chosen with the fondest predilections, and in my flattering hopes, with an immutable decision, as the asylum of my declining years; a retreat which was rendered every day more necessary as well as more dear to me, by the addition of habit to inclination, and of frequent interruptions in my health to the gradual waste committed on it by time."

On leaving Mount Vernon, to enter upon the duties of chief magistrate of the country, he again consigned his estates to the care of a superintendent, leaving with the latter duplicates of his various plans, charts and tables, and very full written directions for the management of the farming. During the whole period of his absence on these public duties, he required from his manager, regularly once a week, a full report of proceedings and of the condition of everything; also a weekly meteorological table, showing the state of the thermometer each day, the direction of the wind, and state of the weather, by which, among other things, he might form a correct judgment of the labors performed on the farms compared with the opportunities afforded by the season. These reports were regularly answered by the President, his replies often filling two or three sheets of paper, and in the course of the year embracing remarks upon every field and every crop, every branch of labor, the stock of the farm, repairs of fences and buildings, care of tools and carts, preparations of manures, and every minutiæ of farming. I would like to give a sketch of one or more of these masterly productions, but want of space forbids. Suffice it to say, that they possess to my mind very great interest, coming from such a source, and when the writer was surrounded by such circumstances, and engaged in such public labors. The like of them, considering all these things, cannot be found elsewhere.

As previously remarked, it was during the eight years Washington held the office of President, that his correspondence with Sir John Sinclair was conducted. The correspondence commenced soon after the establishment of the British Board of Agriculture, in which enterprise Sinclair was a principal actor. The correspondence dwelt largely on the operations of the British Board, on the mportant results flowing and to flow therefrom to Great Britain and all other countries. Washington's mind at once caught the enthusiasm of Sinclair and his associates, in Board, and he corresponded with some of the leading agriculturists in this country, urging them to furnish reports to the Board on several important subjects. His mind was so much interested in the promotion of agriculture by public patronage, believing that it would add greatly to the wealth and happiness of any nation, that he recommended the subject to the consideration of Congress. Many of us are familiar with his memorable words on that subject, admire his foresight and patriotism in framing them; but wonder at the apathy with which they have ever bee regarded by our legislators, from the time they were uttered to the present moment. Many of us believe that an establishment by Congress such as he contemplated, with but a very moderate appropriation, as compared with many that have been given to much less worthy objects, would have proved of great and lasting value to the country. However, what the general government has neglected to do, in this regard, several of the States separately are doing, and the benefits flowing therefrom are quite apparent, proving beyond doubt the correctness of Washington's views.

In one of these letters to Sinclair, Washington remarks:—"I could not omit so favorable an opportunity, as the departure of Mr. Stickland affords me, of presenting my best respects to you; and my sincere thanks for the views of agriculture in the different countries of Great Britain, which you have had the goodness to send me,—and for the Diploma (received by the hands of Mr. Day) admitting me a foreign honorary member of the Board of Agriculture. For this testimony of the attention of that body, and for the honor it has conferred on me, I have a high sense. From the first intimation you were pleased to give me of this Institution, I conceived the most favorable ideas of its utility:—and the more I have seen and reflected on the plan since, the more convinced I am of its importance, in a rational point of view, not only to Great Britain, but to all other countries."

Under date of July 20th, 1794, he writes to Sinclair as follows:—"I know of no pursuit in which more real and important service can be rendered to any country, than by improving its agriculture—its breeds of useful animals—and other branches of a husbandman's cares;—nor can I conceive any plan more conducive to this end than the one you have introduced for bringing into view the actual state of them in all parts of the Kingdom; by which good and bad habits are exhibited in a manner too plain to be misconceived, for the accounts given to the British Board appear, in general, to be drawn up in a masterly manner, affording a fund of information useful in political economy—serviceable in all countries."

Again, under date Dec. 10, 1796, he says:—"A few months more, say the 3d of March next, (1797,) and the scenes of my political life will close, and leave me in the shades of retirement; when, if a few years are allowed me to enjoy it (many I cannot expect, being upon the verge of sixty-five,) and health is continued to me, I shall pursue with pleasure and edification the fruits of the exertions of the British Board for the improvement of agriculture; and shall have leisure, I trust, to realize some of the useful discoveries which have been made in the science of husbandry. Until the above period shall have arrived, and particularly during the present session of Congress, which commenced the 5th instant, I can give but little attention to matters out of the line of my immediate avocations. I did not, however, omit the occasion, at the opening of the session, to call the attention of that body to the importance of agriculture."

The following extract from his Speech to Congress, Dec. 5, 1796, contains his remarks alluded to above:—

"It will not be doubted that with reference either to individual or national welfare. Agriculture is of primary importance. In proportion as nations advance in population and other circumstances of maturity, this truth becomes more apparent, and renders the cultivation of the soil more and more an object of public patronage. Institutions for promoting it grow up, supported by the public purse; and to what object can it be dedicated with greater propriety? Among the means which have been employed to this end, none have been attended with greater success than the establishment of Boards, composed of proper characters, charged with collecting and diffusing information, and enabled by premiums, and small pecuniary aid, to encourage and assist a spirit of discovery and improvement. This species of establishment contributes doubly to the increase of improvement, by stimulating to enterprise and experiment, and by drawing to a common centre the results everywhere of individual skill and observation, and spreading them thence over the whole nation. Experience accordingly has shown that they are very cheap instruments of immense national benefits."

Washington often remarks to Sinclair that agriculture has ever been his favorite pursuit, regrets that the duties of his public station do not allow him to pay that attention to it that he could wish, and expresses an earnest longing for the time to arrive when he may return to Mount Vernon, and engage in "these most agreeable and useful occupations." On retiring from his public office, in the spring of 1797, he returned to his estates on the Potomac, and engaged with renewed pleasure in farming. Writing to Mr. Stickland soon after his retirement to private life, he says:—"At no period have I been more closely employed than now, in repairing the ravages of an eight years' absence. Engaging workmen of different sorts, providing and looking after them, together with the necessary attention to my farms, have occupied all my time since I have been at home. For the detailed accounts of your observations on the husbandry of these United States, and your reflections thereon, I feel myself much obliged, and shall at all times be thankful for any suggestions on agricultural subjects which you may find leisure and inclination to favor me with, as the remainder of my life, which in the common course of things, now in my sixty-sixth year, cannot be of long continuance, will be devoted wholly to rural and agricultural pursuits."

And so for the brief period allotted him after this final retirement, was that life spent. Only four days previous to his death, he made out a new and elaborate plan for the management of his farms, revising and improving upon such former modes of cultivation as appeared to him to need it, making new tables of rotation and of estimates of labor, products, &c. A sketch of these interesting documents cannot be given in this necessarily limited article.

I close with the brief expression of a wish that our statesmen might copy largely from the example of Washington, catching something of his earnest solicitude for the advancement of the agricultural interests of the country, and not allowing mere political theories, or considerations of party, to hinder them from efforts to promote those interests.

F. H.

Brattleboro', July 10, 1855.

EARLY TOMATOES.—MR. GEORGE W. WHITE, of North Cambridge, left with us, July 21st, a box of tomatoes, well grown and fully ripe, which he raised in the open air. He informs us that last year, when the season was more forward, he sold a quantity as early as July 12th. The variety he cultivates came from the French seed, imported two or three years since, and they are prolific as well as early bearers.

For the New England Farmer.

DESIGN AND USEFULNESS OF LABOR.

BY JOHN GOLDSBURY.

From the earliest authentic history of our race, we learn that man was doomed to till the ground, and to gain his subsistence by the sweat of his brow. This judicial sentence was pronounced upon him in consequence of his disobedience in partaking of the forbidden fruit. Man was placed in "the garden of Eden to dress it and to keep it;" "but of the tree of the knowledge of good and evil" he was forbidden to eat. But man disobeyed his Maker; he partook of the forbidden fruit, and the very ground was cursed for his sake. "Therefore, the Lord God sent him forth from the garden of Eden, to till the ground, from whence he was taken. So he drove out the man."

Whether the whole race of man could or would have lived on the earth, through all ages, and, at the same time, have complied with the command to "be fruitful and multiply, and replenish the earth and subdue it," without any labor in cultivating and subduing the ground, and rendering it fruitful, is a question which admits of some discussion, and on which we do not propose to enter. But it would be well for us to inquire a little into the design and usefulness of man's doom in being obliged to cultivate the earth in order to gain a subsistence. And here, if we only stop to consider the nature, design and reasonableness of his employment, or the natural effects of his labors on his character, his usefulness and his happiness, we shall be led to conclude that, however wicked man may have been in disobeying his Maker, God has dealt with him in great mercy, benevolence and kindness, and made the very labors to which he was doomed the stepping-stones to his virtue and happiness.

No one will deny that labor is an honest and honorable employment. It is honest, because it is right, and because God has required it. For the same reason, it is honorable. It has nothing in its nature that is dishonest or dishonorable—nothing that is mean, degrading, disgraceful or derogatory; but, on the contrary, it has much that is ennobling, elevating and praiseworthy. Nor was it the design of God, in imposing labor upon man, to degrade him, or to require him to perform a service which is beneath the dignity of his character. It was not to degrade man, but to lift him up and make him a man, that he was sent forth to labor. The labor imposed upon him was a reasonable service—such as God had a right to impose, and as man was bound in duty to perform. All that was required of man was to labor for his own good as well as that of others—to gain his living by his labor. It was, therefore, not only an honest and honorable employment, but a useful one—such as conduces to health, prosperity and happiness.

The laboring man, whether he be a farmer, a mechanic, a manufacturer, a tradesman, or a professional man, is the truly happy man. It is the very nature of labor to impart happiness to all its votaries. There is a real satisfaction of mind in beholding the labors and productions of one's own hands—in overcoming difficulties, and in arriving at certain desirable results. But, on the contrary, idleness leads to poverty and wretchedness, and renders a man truly miserable. Hear the language of Solomon upon this point, who has given us a glowing description of the idle man: "I went by the field of the slothful, and by the vineyard of the man void of understanding; and lo, it was all grown over with thorns, and nettles had covered the face thereof, and the stone-wall thereof was broken down. Then I saw, and considered it well; I looked upon it, and received instruction. Yet a little sleep, a little slumber, a little folding of the hands to sleep: so shall thy poverty come as one that travelleth, and thy want as an armed man."

The industrious farmer, perhaps, takes more satisfaction than any other man. His employment gives symmetry and strength to his frame, energy to his character, buoyancy to his spirits, and expansion to all his faculties. He is Nature's true nobleman. This he manifests by his industry and perseverance, no less, than by his noble character, his pure thoughts, his sound reasoning, and his practical good sense. For, though he has been turned out of the beautiful garden of Eden and of innocence, yet he has not been dwarfed, either in his mental or his physical powers. He is still a man, possessing all the faculties and powers of a man: nor yet has he been doomed to cultivate a barren waste or a sandy desert, but a soil naturally rich, fruitful and productive, where, by his labor and diligence, he may make "the wilderness and solitary place flourish and blossom as the rose." And he *has* made "the wilderness and solitary place" productive of all the comforts, the conveniences, the necessaries and the luxuries of life.

When we look around us, even in our own land, and mark the progress of agriculture and the mechanic arts, of science, literature and general intelligence,—when we see the cities and thriving towns with which New England is filled, and reflect how rapidly the forest has given way to cultivated fields, and cultivated fields to busy and prosperous towns, we can hardly realize, that, in less than a hundred and fifty years, all this change has been effected,—that a howling wilderness has been converted into a fruitful field, occupied and cultivated by many millions of virtuous, intelligent, enterprising and happy inhabitants.

Labor, then, is a necessary, a useful, and a virtuous employment. God himself has shown it to be such, not only by requiring it of man, but by his own labors in creating the world. According to the Bible, God labored six days, in the work of creation, which he would not have done, had labor been dishonorable or useless. From the very representations of the Bible, therefore,—from the example of God in creating the world and all things therein, from all that we know of the character of God, and of his design in requiring labor of man, we infer the wise design and the great usefulness of labor.

Warwick, 1855.

REMARKS.—In a former article by this writer, the name was printed Goldsmith, when it should have been Goldsbury.

☞ The mother of Horace Greely died at Wayne, Erie county, Penn., on the 27th of July. The father of Mr. Greely is still living.

For the New England Farmer.

ANTIQUITY AND DIGNITY OF AGRICULTURE.

BY JOHN GOLDSBURY.

Agriculture was one of the earliest and most common pursuits of man: tilling the ground and tending herds and flocks were among the first and most general occupations; and the knowledge, relating to these subjects, was the first acquired and the most extensive. Almost all the ancient heathen nations ascribe the invention and introduction of agriculture in their country to some divinity or deified sovereign. With some nations, the cultivation of the soil was the most common occupation; with others, the raising of cattle; and with others, hunting and fishing. Compared with other modes of subsistence, agriculture has an important advantage in promoting various arts, because it compels men to renounce a wandering life, and settle in fixed, permanent abodes; thus it increases the demand for conveniences, and furnishes an occasion for inventions, which may help to facilitate and carry to perfection the culture of the soil.

Agriculture was, from the beginning, an honorable employment among the Romans. Patricians and the most distinguished citizens engaged in it. Cincinnatus was laboring in his fields, when informed of his election to the dictatorship. Regulus asked leave to retire from the senate to cultivate a little farm, suffering from neglect. This attention to the actual cultivation of the lands, by the ablest and best informed men, occasioned an advancement in the art of agriculture, such as the Greeks never attained. There were, however, numerous works written in Greek on this subject. Varro mentions about fifty authors. But whatever might have been written by the Greeks, the Romans were not, in this branch, mere imitators or borrowers. The maxims and precepts, which are given by the Roman writers, were drawn from the experiments and observations of the Romans themselves. Their principles are not extensively applicable to modern agriculture; yet their writings abound in useful hints and remarks, and have always been regarded as curious and interesting compositions. Virgil's Georgics may properly be adverted to as illustrating the agriculture of the Romans.

Agriculture was also held in high estimation among the Greeks. It was their most common pursuit and means of living. The boundaries of their fields were marked by stones, which served to guard the cultivators against mutual encroachments. The culture of the vine and of trees was also an object of attention. The raising of cattle was a common employment, and a principal source of wealth. These employments were not considered in any way degrading or ignoble, but were exercised by persons of eminence and even by princes. From the writings of Hesiod, it is evident that agriculture was, at an early period, a subject of practical interest among the Greeks; yet the art does not appear to have been carried to very great perfection in any of the States. The soil of Attica was more favorable to the production of the grape, olive, and fig, than of grain. The exportation of corn was prohibited. If corn-dealers combined to raise the price, they were liable to capital punishment. In order to avoid a scarcity of corn, public granaries were kept, under the direction of purveyors and receivers.

Agriculture, both in Greece and Rome, was held in much higher estimation than commerce, or any of the mechanic arts. The fields were chiefly possessed by respectable citizens. Many noblemen lived upon their own lands, and made the cultivation and improvement of them a special study; the ornamenting of their estates constituted an important part of their luxury. The grain chiefly cultivated was wheat, but of various kinds; such as corn, barley, oats, &c. The breeding of cattle was an object of attention; chiefly, oxen, horses, sheep and goats. Much care was also bestowed on bees. Trees, also, both forest, fruit and ornamental, received their share of attention. Both nations were acquainted with most of the various methods now practiced for propagating the different species and varieties of fruit; but the culture of the vine finally took the precedence of all other cultivation.

These nations, Greece and Rome, had various gods and goddesses whom they regarded and worshipped as the patrons of agriculture, the protectors of fields, of fruits, and of flowers, and the defenders of limits. Among these were *Terminus*, the god of boundaries, whose peculiar province it was to mark the limits of landed property, and to guard and protect them; *Priapus*, the god of fields, of cultivated grounds and gardens; *Vertumnus*, the god of fruit trees, and his wife, *Pomona*, the goddess of fruits and gardens; *Flora* and *Chloris*, the goddesses of blossoms and flowers; *Feronia*, the goddess of fruits, nurseries and groves; *Pales*, the goddess of pasturage and the feeding of flocks; *Bubona*, the goddess of oxen; *Segetia*, the goddess of seed planted in the earth; *Hippona*, the goddess of horses; *Collina*, the goddess of the hills; *Vallonia*, the goddess of the valleys; *Runcina*, the goddess of weeding; *Volusia*, the goddess of the growing corn; *Mellona*, the goddess of honey; *Occator*, the god of harrowing; *Sterculius*, the god of manuring; and *Pilumnus*, the god of kneading and baking bread. Besides these, they had a great goddess by the name of *Ceres*, to whom they ascribed the discovery of agriculture, and all subsequent improvements in husbandry. She is said to have first taught men to cultivate grain, and to instruct them in all the labors pertaining to it. She travelled from country to country, and imparted her favors to all lands by giving instruction in agriculture and the use of the plow. And she associated *Triptolemus* with her, as a companion of her travels, and sent him over the earth, to teach husbandry, and thereby raised him to the rank of a god. To the foregoing gods and goddesses, the Greeks and Romans offered in sacrifice at stated times, not only fruits and flowers, but some of the richest productions of the earth.

TALL HERD'S GRASS.—We saw the other day, in the office of S. B. PHINNEY, Esq., Editor of the *Barnstable Patriot*, some herd's grass upwards of 6 feet high, a fair specimen of several acres grown upon a swamp which he had reclaimed. Friend Phinney, throw your editorial quill into the fire, and your commission as Collector of the port of Barnstable, to the sharks of Barnstable Bay, and let your genius work in its natural way. Herd's grass six feet and one inch high by the acre, to say nothing of the *ten* acres of yellow pines now ten to fifteen feet high, the seeds of which he sowed some ten years ago! What a pity that he who can change the face of nature at will, and make the earth teem with its richest productions, should cramp his genius over a "political item," or over a dozen "light-houses." Why, anybody can write an editorial, or see that Uncle Sam's revenue is duly collected; but who can turn an ugly swamp inside out, and clothe it with perennial beauty and herd's grass six feet and one inch high! He must have taken his pattern from some of those ugly customers, called sword-fish, who perforate ships' bottoms with their noses six feet and one inch long!

For the New England Farmer.

STONE HOUSES.

Seeing an inquiry of a "Subscriber" from Warwick in relation to gravel houses, I have ventured to indite the following, respecting a method of building with common stone and mortar used here in one instance, and which has also been successfully used elsewhere. To many the method may not be new; but still it is to some, and deserves notice as being an attempt to solve the great problem so often proposed by men of moderate and humble means, "how can we build substantially and cheaply." Our forests are fast disappearing; and thorough, substantial, well-built wood houses, will now rank among those of the first cost. True, we can even now build quite cheap with wood, provided we are content to accept a building which is really *cheap* in all particulars. But with such structures no man of sterling mind is at all satisfied. The house built in an unsubstantial manner does the possessor little or no good in adding to his real happiness here; nay, it may do him positive moral harm, if not physical; for it may lower his estimate of the good, the noble, and the true; although it may shield him and his in a measure from the elements.

Last year, (1854) a stone machine shop, 400 feet long, 40 feet wide and two stories high, with walls 21 inches thick, was built here of a kind of slate in the following manner. The entire mass of stone blasted from the ledge was carried to the building, the nature of the ledge being such that a very large portion of the stone obtained by blasting was in small pieces; into the mortar, which was made of lime and coarse sand, were put, and intimately mixed with it, all the small chips and fragments. All the larger stone were reserved for the process of filling in. The walls were made by filling the mortar into boxes, made by placing plank outside and inside of the wall, a distance apart of the desired thickness of the wall. These plank are kept in their places by plumb, straight edges of sufficient strength placed and fastened upon the outside of the plank. When the planks have been thus properly disposed in their places to a height of three or four feet above the foundation, the mortar, in a very plastic state, is brought from the mortar-bed in hods, and poured into the space between the planks. Into this soft, yielding mass were disposed all of the larger stones in such a manner as to make the wall one solid mass of mortar and stone. These processes of alternately filling with mortar and larger stone are repeated until the mould is full.

The mould or planks forming the wall are allowed to remain upon the walls until the mortar has set, say twenty-four hours or more, according to the quality of the mortar; and are then removed and reset, and all the foregoing operations repeated until the walls of the building are completed. The windows and door-frames are made and set in the same manner as they are for brick buildings; over the doors and windows is put a wood or stone lintel to hold the pressure of the wall until it is dry. Care is to be taken in placing all of the stone around the windows and doors to have them permanently fixed in their places, so as to form a solid jam. The flooring timbers are placed and anchored into the walls in the same manner as they are in brick buildings. As this kind of wall is somewhat uneven for the reception of the flooring timbers, a piece of scantling, say 24 by 6 inches, should be placed and levelled upon the walls, and be firmly bedded with mortar to receive the joists and other flooring timbers.

This method accords with that practiced by Dr. C. F. Ramsdell, formerly of Springfield, but now of South Brookfield, in constructing buildings of stone. The Doctor has had some experience in this mode of building, and would be very glad to communicate with any one upon this subject. The sand for his mortar he prefers to be coarse and filled with small gravel stone, the largest of which should not exceed the size of a kidney bean. Into his mortar in a very thin state, when well mixed, he puts larger stone of various sizes. The laying of his walls he does in the same manner as before stated. For his larger stone he takes any field or whatever kind of good building stones are most easy to be obtained, which are of a suitable size for his walls. Flat stone are always to be preferred, but by a due admixture of round and flat stone a very strong wall may thus be built. For success with this kind of wall one precaution is of the first importance, and that is in laying, the materials should be so disposed in the walls, as to make the same entirely solid, and at the same time have every individual stone entirely coated with the mortar.

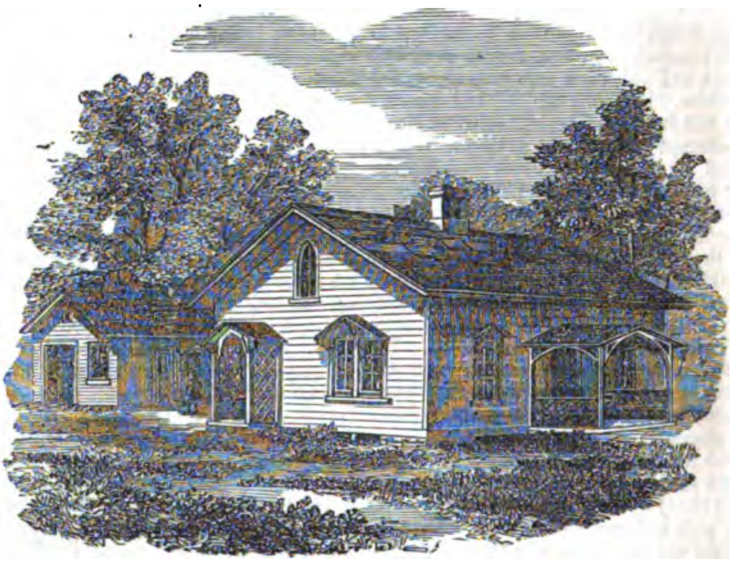
The thickness of the walls should be proportioned to the size of the building and the height and number of stories. For ordinary dwellings, two stories high, the Doctor thinks 14 inches for the cellar, 12 inches for the first story, and 10 inches for the second story, to be about that which is required for strength and durability. All inside chimneys would be best built with brick. Those in the outside walls might be carried with the same materials of the walls.

The outside of these houses may be finished with a kind of mortar-finish called stucco. This finish has been quite successfully used for many years in various parts of our country. It is made of common lime and hydraulic cement, together with some chemicals used in coloring the surface after it is partly dry; this makes a fine and durable covering and finish: and withal, is tasty in appearance, it being blocked off in imitation of large stones, and may be so shaded as to represent any of the sandstones or granite, to suit the fancy of the proprietor. If a nicer and more expensive finish is desired than the stucco, this wall is well adapted to receive the mastic finish, which is made of dry sand and linseed oil, together with some other drying materials. The doors and windows may be ornamented with terra cotta or iron projecting caps if desired; and all the appendages of verandahs and projecting cornices, and ornamental observatories, may appropriately have a place upon these structures.

To prevent any injurious effects arising from dampness on account of the absorption and retention of moisture by the walls, against all the outside wall, upon the inside there should be furring, *done as is done in many brick buildings, and for the same reason. Where oil mastic is used, the inside plastering might be rendered directly upon the walls, as the mastic, from its very nature, would prevent the absorption of moisture. And some express a positive opinion that where the stucco is used, no injurious effects would arise from dampness, even if the inside plastering were done upon the walls.

Upon the authority of Dr. Ramsdell, the cost of these structures finished upon the outside with stucco in a plain manner, is not far from the cost of common wood dwellings, or from $1,25 to $1,50 per square yard of the wall all finished. This price, however, must vary some with the price of the lime in particular vicinities, and with the facility with which the sand and other materials could be obtained. P. BALL.

Worcester, 1855.

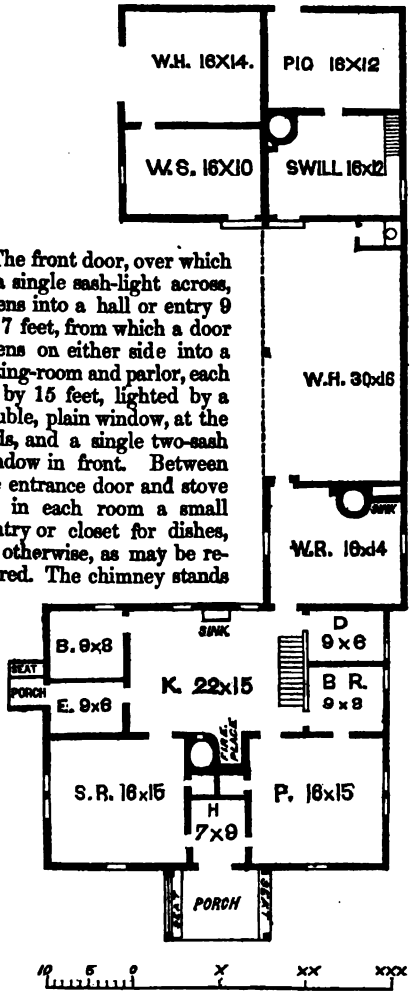


DESIGN FOR A SMALL FARM HOUSE.

We here present a farm house of the simplest and most unpretending kind, suitable for a farm of twenty, fifty, or an hundred acres. Buildings somewhat in this style are not unfrequently seen in the New England States, and in New York; and the plan is in fact suggested, although not copied, from some farm houses which we have known there, with improvements and additions of our own.

This house may be built either of stone, brick or wood. The style is rather rustic than otherwise, and intended to be altogether plain, yet agreeable in outward appearance, and of quite convenient arrangement. The body of this house is 40 by 30 feet on the ground, and 12 feet high, to the plates for the roof; the lower rooms nine feet high; the roof intended for a pitch of 35°—but, by an error in the drawing, made less—thus affording very tolerable chamber room in the roof story. The L, or rear projection, containing the wash-room and woodhouse, juts out two feet from the side of the house to which it is attached, with posts 7½ feet high above the floor of the main house; the pitch of the roof being the same. Beyond this is a building 32 by 24 feet, with 10 feet posts, partitioned off into a swill-room, piggery, workshop, and wagon-house, and a like roof with the others. A light, rustic porch, 12 by 18 feet, with lattice work, is placed on the front of the house, and another at the side door, over which vines, by way of drapery, may run; thus combining that sheltered, comfortable and home-like expression so desirable in a rural dwelling.—The chimney is carried out in three separate flues, sufficiently marked by the partitions above the roof. The windows are hooded, or sheltered, to protect them from the weather, and fitted with simple sliding sashes, with 7 by 9 or 8 by 10 glass. Outer blinds may be added, if required; but it is usually better to have these *inside*, as they are no ornament to the outside of the building, are liable to be driven back and forth by the wind, even if fastenings are used, and in any event are little better than a continual annoyance.

INTERIOR ARRANGEMENT.



GROUND PLAN.

The front door, over which is a single sash-light across, opens into a hall or entry 9 by 7 feet, from which a door opens on either side into a sitting-room and parlor, each 16 by 15 feet, lighted by a double, plain window, at the ends, and a single two-sash window in front. Between the entrance door and stove are in each room a small pantry or closet for dishes, or otherwise, as may be required. The chimney stands in the centre of the house, with a separate flue for each front room, into which a thimble is inserted to receive the stovepipes by which they are warmed; and from the inner side of these rooms each has a door passing to the kitchen, or chief living room. This last apartment is 22 by 15 feet, with a broad fireplace containing a crane, hooks and trammel, if required, and a spacious family oven—affording those homely and primitive comforts still so dear to many of us who are not ready to concede that all the virtues of the present day are combined in a "perfection cooking stove," and a "patent" heater; although there is a chance for these last, if they should be adopted into the peaceful atmosphere of this kitchen.

On one side of the kitchen, in rear of the stairs, is a bedroom, 9 by 8 feet, with a window in one corner. Adjoining that, is a buttery, dairy-room, or closet, 9 by 6 feet, also having a window. At the inner end of the stairway is the cellar passage; at the outer end is the chamber passage, landing above in the highest part of the roof story. Opposite the chamber stairs is a door leading to the wash-room. Between the two windows, on the rear side of the kitchen, is a sink, with a waste pipe passing out through the wall. At the further corner a door opens into a snug bedroom 9 by 8 feet, lighted by a window in rear; and adjoining this is a side entry leading from the end door, 9 by 6 feet in area; thus making every room in the house accessible at once from the kitchen, and giving the greatest possible convenience in both living and house-work.

The roof story is partitioned into convenient-sized bedrooms; the ceiling running down the pitch of the roof to within two feet of the floor, unless they are cut short by inner partitions, as they are in the largest chamber, to give closets. The open area in the centre, at the head of the stairs, is lighted by a small gable window inserted in the roof, at the rear, and serves as a lumber room; or, if necessary, a bed may occupy a part of it.

In rear of the main dwelling is a building 44 by 16 feet, occupied as a wash-room and wood-house. The wash-room floor is let down eight inches below the kitchen, and is 16 by 14 feet, in area, lighted by a window on each side, with a chimney, in which is set a boiler, and fireplace, if desired, and a sink in the corner adjoining. This room is 7½ feet in height. A door passes from this wash-room into the wood-house, which is 30 by 16 feet, open in front, with a water-closet in the further corner.

The cellar is 7½ feet in height—and is the whole size of the house, laid with good stone wall, in lime mortar, with a flight of steps leading outside, in rear of the kitchen, and two or more sash-light windows at the ends. If not in a loose, gravelly, or sandy soil, the cellar should be kept dry by a drain leading out on to lower ground.

The building beyond, and adjoining the wood-house, contains a swill house 16 by 12 feet, with a window in one end; a chimney and boiler in one corner, with storage for swill barrels, grain, meal, potatoes, &c., for feeding the pigs, which are in the adjoining pen of same size, with feeding trough, place for sleeping, &c., and having a window in one end and a door in the rear, leading to a yard.

Adjoining these, in front, is a workshop and tool-house, 16 by 10 feet, with a window at the end, and an entrance door near the wood house. In this is a joiner's work-bench, a chest of working tools, such as saw, hammers, augers, &c., &c., necessary for repairing implements, doing little rough jobs, or other wood work, &c., which every farmer ought to do for himself; and also storing his hoes, axes, shovels, hammers, and other small farm implements. In this room he will find abundant rainy-day employment in repairing his utensils of various kinds, making his beehives, hencoops, &c., &c. Next to this is the wagon-house, 16 by 14 feet, with broad doors at the end, and harness pegs around the walls.

The posts of this building are 10 feet high; the rooms eight feet high, and a low chamber overhead for storing lumber, grain, and other articles, as may be required. Altogether, these several apartments make a very complete and desirable accommodation to a man with the property and occupation for which it is intended.

On one side and adjoining the house, should be the garden, the clothes-yard, and the bee-house, which last should always stand in full sight, and facing the most frequented room—say the kitchen—that they can be seen daily during the swarming season, as those performing household duties may keep them in view.—*Allen's Rural Architecture.*

EXTRACTS AND REPLIES.

APHIDES, OR PLANT LICE.

Mr. Farmer :—Your correspondent "J. D." of Exeter, N. H., inquires how he can destroy *Aphides* or plant lice. Some dozen years since they were here very destructive to young trees, but they have since nearly disappeared. Whale oil soap is what few farmers have—and common soap or soap-suds, when applied so strong as to kill the trees, will not injure them.

The only effectual remedy I have ever applied is *strong* tobacco water; this will kill the insects without injuring the trees. It is easily applied by dipping the limbs in the water, or by sponging them; any piece of old quilt or cotton batting will answer for a sponge.

The wife of Professor Thompson, an enthusiastic horticulturist, and one who has raised more young trees than any other lady in this town, told me she had been perfectly successful in ridding her trees of the whole tribe of *aphides* by using water in which potatoes had been boiled; this she preferred to tobacco water, as it discolored nothing in its application. C. Goodrich.

Burlington, Vt., July 20, 1855.

TALL RYE—AND THE CROPS.

Mr. Editor :—Your paper of June 16th speaks of some *tall rye* raised in Farmington, Iowa, which measured six feet in length; one of my neighbors has a lot of rye growing, which stands *six feet and a quarter* high; Mr. James Hall has a number of acres of noble-looking rye, some of which measures six feet and a half in length.

Crops generally look very well, though the weather has been rather wet for some pieces of corn. A Subscriber.

Newport, N. H., July 11, 1855.

SKUNK CABBAGE.

Mr. Editor :—I wish to know if there is any way to eradicate skunk cabbage. I have a maple-swamp, which contains a great deal of this plant, and I am desirous of removing it entirely. Any information which you can give will be acceptable to A Subscriber.

Remarks.—Where you cannot plow, pull it up when it is just gone out of blossom. Persist in this course for two or three years, and you will greatly check, if not eradicate it. A piece of the root an inch in length will grow at first, but cannot retain much vitality for any length of time if deprived of the friendly offices of the leaves. Or, dig it up with a spade in May, and then as often as the leaves get to be 8 or 10 inches long.

CROPS—REAPERS—HAIL-STORM.

The prospect for an abundant harvest is very good in every section of Canada West.

Several reaping machines have been purchased for use in this vicinity, and will soon be in operation. Grass is the lightest crop.

A very destructive hail storm passed through this county on the 13th inst., doing much damage to crops in some places. It went in a vein about half a mile wide. More than one hundred panes of glass were broken in one house, and a great many acres of grain were entirely destroyed. It is reported that in one neighborhood many birds were killed by the hail. The hailstones were as large as hens' eggs, and it is said some were seen *seven inches* in circumference; but I cannot vouch for the truth of it.

Weather very hot; mercury 87° in the shade.

July 11, 1855. L. Varney.

HORSE POWER—APPLES.

Mr. Nourse : — Sir, — Will you inform me through your paper, what would be the cost of a small threshing machine that could be worked by horse-power. (*a.*)

I have a small mill for grinding corn which is worked by horses; could I get a machine to be worked by the same power that carries the mill? (*b.*)

Also, will you please to inform me what will prevent the stinging of apples, causing them to drop off while very small. (*c.*) Daniel Childs.

Cotuit Port, 1855.

Remarks.—(*a.*) Thresher, separator and fixtures complete, with a 24 inch cylinder, $37,00; size larger, $40,00. Set of India rubber belts, and other extras, $5,00.

(*b.*) The same power that carries your mill may be applied to the thresher.

(*c.*) Apples fall from two causes—mostly from the egg deposited in the blossom, where the worm is hatched and passes into the apple itself. Another cause is, that the apple is perforated by the curculio, and an egg deposited under the skin where it is hatched and the worm passes into the apple. If you will devise a remedy, you may consider your fortune as made.

BILES ON THE HORSE.

Mr. Editor :—I wish to inquire what will cure collar biles. I have a mare afflicted with them so that I am unable to work her at all. They are small biles, which come out in great numbers under the collar and on the back. C. C.

Springfield, July, 1855.

Remarks.—Your mare has at some time, probably, been heated and then fed highly with grain, and the blood has contracted humors which show themselves whenever the skin is chafed or becomes hot. Careful feeding, with careful usage, will be the best remedy. Let her have a run of five or six weeks in a good pasture where the grass is sweet, if you can possibly spare her.

HOW TO KILL PLANT LICE.

Make a wash of soft soap, cow manure, and water, and wash the trunks and large limbs with it. Then for two or three mornings when the dew is on, sprinkle with ashes. This, with me, has effectually destroyed the small green lice on my trees.

East Abington. A. Brown.

TO KILL PASTURE BRAKES.

Mow them closely in dry weather, and rake the brakes off at once so as to expose the roots as much as possible, or put on ashes pretty freely, and it will kill them. S. F.

Houghtonsville, Vt.

POTATO-STEM BORER.

Asa G. Sheldon, Esq., of Wilmington, a gentleman whose observation is as keen as his judgment is sound, brought us a potato-stalk which had been entered by a worm an inch long, with a copper-colored head and twelve legs. The entrance was made near the root, and he had gone up the centre of the stem some six or eight inches, eating clean as he went all the pulpy part of the stem.

Who is he, and how much mischief does he do?

DISEASED PEAR TREES.

I am much troubled with a disease in my pear trees, and do not know what it is. Some call it *sunblight*, others say it is caused by frost. After losing several trees, I have saved others by shaving off all the affected bark. I hope some of your correspondents will tell me what the trouble is, and how I shall remedy it. Peter Wait.

Danvers, July, 1855.

Crops of all kinds look well. Hay is coming in better than last year. A. F.

Middlebury, Vt.

For the New England Farmer.

"THE OTHER PLACE."

"You can't own all the land that joins you," is a saying old and sure, yet how few Yankee farmers seem to believe it. If the mania for owing land in large quantities could be exchanged for a mania for owning good land, and good cattle, New England would thrive without agricultural papers; but as that good time coming is not likely to be forthcoming soon without assistance, all good farmers will look to the press, that corrector of popular opinion, as their deliverer.

But to return to my text, which I think will need no explanation, for who has not heard of the term? In some parts of Massachusetts, no farmer is considered forehanded, or, I should say, considers himself so, until he owns an adjoining farm, which generally takes the name of "the other place." That this acquisition is the beginning of trouble I will not say, but that in most cases it brings more trouble and perplexity than profit or comfort, I will unhesitatingly avow. That this is necessarily the case, I do not say, but generally, when a man adds one hundred acres to the two-hundred acres of land already acquired, he has little idea of employing any more help on the farm, and certainly not in the house, nor does he think of keeping better cows and improving his stock; his mind is too much occupied with number; he is thinking of the number of acres he will own, the number of acres he will have to mow over, and the number of cows he will keep. Quality has so little to do with his calculations, it would be hard to make him believe that the profit from two acres, well cultivated, would be more than the profit from three acres with the same expense and labor applied that the two acres received. On this point I feel inclined to differ with him, and if I am in error, I trust some correspondent of the *Farmer* will set me aright. Yeoman.

Brookfield, July, 1855.

For the New England Farmer.

SMALL POTATOES.

Mr. Editor:—In the fewest words I will answer and explain to your correspondent, "S. P." (I hope I am addressing my own sex.)

My communication upon "Small Potatoes," touching his supposed errors, he thinks "a tissue of several fallacies, common to reasoning on agriculture." This long whip reaches others as well as myself, who have the temerity to express an opinion upon this subject.

I said there was but one *right way* in farming, however much practice might vary. I still maintain the correctness of the principle. He says, "to follow this, is a prolific source of trouble." I would ask why? I will admit there are more ways than one, yet one general standard supposed and practiced as *right* is adopted.

There are two ways to gather your winter apples, delicate peaches, pears, &c.; will you hand-pick or shake off? Two roads lead to the mill; is there any choice? Would you employ a bungler or a good farrier to shoe your horse? In surgery, in fact in all practice, the *right way* has its single interpretation, while the wrong way might be the result of ignorance or stupidity. If "all nature is against" the one *right way*, it is no paradox that square is round or perpendicular is horizontal.

Your correspondent recommended "small potatoes" as seed, and illustrated by two strong examples. He said the native tuber was "small," but a "large growth was artificial. He again says, "large tubers and cabbage heads are of artificial growth." Nature gives but one principle, vested in the germinating power of the seed, according to its size and functions. This is its law—man applies his skill equally, large and small is the natural or real, not the artificial result. I hope this will not be considered as "one hypothesis to prove another," or a "theoretical speculation."

"Grain is not potatoes," says "S. P." Another man says, "a chestnut horse is not a horse-chestnut." All very true—but which has most affinity? In their cultivation and uses, there is certainly a friendly alliance between grain and potatoes. Mr. Editor, this may be a profitless discussion; it is certainly beyond an arms-length battle, the combatants being strangers and far apart. My object has been to state to farmers my own positive experience and the practice of others.

This morning a large farmer laughed at the idea of planting small potatoes; he says two to four vines in a hill from large potatoes two feet apart, is full enough. On this point I am convinced it is the *one right way*.

The flat farms of Flatland and Flatbush are loaded with potatoes, corn, winter wheat, rye and grass —wheat and rye, very full. Many square miles checked off with rail fences, indicate that one king farmer directs the whole: not a stone to jar your wheels, or a fruit tree (save now and then a cherry) amid all the luxury. Neat white houses, Dutchy in shape and trimmings, such as solid shutters, painted black with strap hinges, &c., all presenting a great contrast to the farm vicinity of Boston. Weather has been bad for haymakers—also much wheat is down.

Pardon the length—will be more brief in future.

Brooklyn, L. I., July 14. H. Poor.

For the New England Farmer.

MOWING MACHINES.

Many experiments have demonstrated that an acre of grass can readily be cut by one of these machines in forty minutes. Such was the fact in the experiment at Salem, July 16, when one team cut a quarter of an acre in ten minutes; and other teams in less time, as reported.

Of this I had some doubts, until this morning, I saw a well trained team of horses, under the direction of a skilful driver, pass around a lot of herdsgrass, 12 rods by 30, and so continue to go round and round, until the whole was laid completely flat, in less than two hours. The machine used was Ketchum's, with latest improvements, and the crop of more than one ton to the acre, was spread as even as I ever witnessed. After such operations, oft repeated, no one can doubt that machines of this character are destined to come into general use.

Suppose a machine to cut a swarth one-quarter of a rod in width, it will readily be seen that a team will have to move only *two miles*, to complete an acre. Or suppose it to cut a swarth one yard in width, then it will have to move less than *three miles* to complete an acre. There are few teams that will not do either of these, without urging. I cannot doubt that machines will, ere long, be so constructed, that one horse will do this work with ease, when skilfully directed; and then one-half of the hardest labor of the man, will be changed from the shoulders of the man to the shoulders of the beast, for whose use this fodder is gathered. *.

Salem, July 27, 1855.

P. S.—I say nothing of the operations of other varieties of machines, such as Manny's and Russell's, because my purpose is to speak only of what I have myself witnessed. But if rumor is to be credited, some of these, when in order, have done quite as well as Ketchum's. Like the use of the plow, much will depend upon the *team* and the *driver*. I am not unmindful, that it has been known for many years that grass could be thus cut: still, so true is it, that cultivators of the soil are slow in introducing new modes of operation, that many of the best implements now in use have had a hard struggle before they came into general favor. Who would now consent to dispense with cast iron in the structure of the plow? Still, who does not remember how its first introduction was ridiculed?

PAINT FOR HOUSES.

We recently published a few directions on this subject, which seem to us important. One who seems to be versed in the subject, as a practical painter, makes other suggestions, in the *Indiana Farmer*, which we are disposed to endorse. He says: "It is no easy matter for some painters who pretend to considerable experience in their art, to paint the interior of a house in a proper manner. White lead and oil, mixed as for outside use, will dry, it is true, and preserve the wood-work; but before three months, the paint will become almost yellow, and have exactly the appearance of being smoked. This is not the case with external painting, because the light and air bleach the paint precisely as it does linen or cotton cloth when exposed in a similar way.

To paint white in the interior of a house, very little linseed oil should be used, except what the white lead was at first ground in. Spirits of turpentine should be thc principal fluid used to mix the paint, Japan being added in small quantity as a dryer. The first coat, or "priming," should be mixed with linseed oil alone, being well rubbed down when dry, with sand paper. Two coats should afterwards be put on with the turpentine alone, the last coat being rather the thickest.

To make a very handsome white finish, for parlors and other nice rooms, after putting the paint on very carefully, Gum Demar varnish should be put on over all. This makes a beautiful gloss, and keeps the paint of a brilliant white all the time. Should the paint become dirty, it can be washed off as easily as a pane of glass, using nothing but warm water, as strong soap destroys the varnish. Every house-builder desiring a permanent, brilliant white finish to his rooms, should use this varnish. It answers a very good purpose to mix it in with the last coat of paint, making a much handsomer finish than when not used at all, but much the best way is to give the entire work a coat of the varnish after the painting is finished and partially dry.

Kitchens should be painted a light slate or lead color, made by mixing a small quantity of lampblack with the white lead; particularly the doors, mantel-pieces and wash-boards. The floors of porches and kitchens may be painted with the same material, or they will look pleasant and cheerful if yellow ochre is used, ground up with linseed oil and Japan.

In putting on green paint, slate color should first be used as a priming, two coats of the green being added afterward. Paris green makes the brightest color, and must be ground in oil, adding Japan as a dryer. Chrome green makes the deepest and most permanent color, and white lead is used to temper the paint to the proper hue.—*Ohio Farmer and Horticulturist.*

For the New England Farmer.

RAPE, OR COLE PLANT.

Respected Editor:—In reading your valuable paper of June 30th, I noticed that "A. B." of Sudbury, Mass., made an attempt to cultivate the *rape* or *cole* plant, which proved unsuccessful, which may be attributed to the season of sowing, which should have been done in the fall.

Having been anxious myself to obtain some vegetable oil which might be used as a substitute for the unwholesome fat of the swine for culinary purposes, I have made some investigation concerning the various kinds of vegetable oils, and find that *rape seed* produces a very beautiful, inert and pleasant oil, which is greatly admired and much used by the French, taking the place of lard in the kitchen. A Frenchman who had used an abundance of the oil, and from whom I obtained the most of my information, assured me that one bushel of the seed would produce three gallons of oil. Of this I have no other proof than his statement, but am confident from expressing a few seeds that they are very productive of oil. I have been entertaining hopes that some one would make an attempt and give the result of his experiment to the public.

In the fall of 1848, I procured a small quantity of seed, which I kept until the next year, and sowed about the first of September; it came up, grew well, and made a good head or top before cold weather came on. I let it remain in the ground until the next spring, when the plants started and grew very finely, producing nearly a peck of very fine seed, which was matured by the last of June. I found it to be very productive, but as there was no mill for making oil in this region, I did not attempt to cultivate any more, but think it may be cultivated to advantage with the following precautions. All who are acquainted with the turnip class or family, know it to be a *biennial* plant, requiring two seasons to mature the seed. It is so with rape, and it must be sowed in the fall, in season to make good root and top, and if the roots or plants are well covered with snow during winter, and not suffered to freeze and thaw in the spring, they will produce a good crop of seed.

Those who are fond of greens can get a good supply early in spring, without detriment to the plants, if they do not pick off the centre stalk. If "A. B." will try again and sow in the fall, he will, undoubtedly, meet with good success. P. A. F.

Shaker Village, N. H., July 9.

WHY IS THE FARMER DISCONTENTED?

We propose to discuss the question propounded above, in three or four articles, from time to time, and quoting pretty freely from addresses which we have delivered before lyceums and at agricultural fairs.

There is an instinctive desire in the breast of most persons to leave the noise and confusion of [illegible]wded places, and retire at some time to the peaceful village and the quiet of rural life. The tradesman and artizan, weary of their confinement, long for a wider field of action, while the merehant, harassed by the exposure of his property to the fickle elements, and the danger to those who go down to the sea in ships, sees in the distance the evening of his days embellished by the comforts clustering around a home in the country. Others possess the taste for a home on the farm from early youth, and when separated from it, are ever elevating the old roof-tree and the happy haunts of childhood above all the pomp and glitter of cities, and the trappings of fashionable life.

For us, the farm has ever had this charm, and its implements are familiar to our hands, and the opinions we express have been formed *on the farm*, while engaged in its labors and enjoying its pleasures. We look back to its renovated precincts with as much tender solicitude as does the graduate to his beloved alma mater, and live over our youth again in the recollection of its delightful labors, scenes and recreations. But since those times, great changes have taken place in the modes of cultivating the soil, as in most of the business men pursue.

Facilities in printing and publishing have kept pace wish other improvements of the age. The exact experiments of the scholar, the accurate observation of the farmer, dissertations, pamphlets and newspapers have been multiplied without number, through the magic power of the press. In these have been discussed the manual operations of the farm; the plowing, planting, haying, draining, subsoiling, and nature of the soils; and, although much may well be said upon each of these fruitful topics, we shall not occupy space with more than a casual reference to any of them.

It was once supposed that the profits of the farm, and the beauty of the homestead, depended upon the *hands*, alone. That error has had its day, wrought its evil and departed, we trust, never to return. A better opinion now prevails, that *labor*, to be profitable, must be guided by *intelligence*, and it is of the *importance* of that intelligence that we propose to speak.

On the rugged mountains and beautifully-sweeping vales of New England—on the broad prairies of the West, and the sunny acres of the South, the same causes are operating against an earnest and hearty love of rural life, and its occupations.

We assume the fact, that great discontent exists in relation to that life; that young men and young women are dissatisfied with the employments of the farm, and are seeking in speculative schemes that aliment for the mind, which they have failed to find in rural occupations, and a quiet home.

If we can suggest a remedy for this evil, we shall deem it of more importance than to throw new light on the common business of the fields, and the barn, or to enforce any principle of vegetable or animal existence.

Large numbers commence farming, without other capital than their own physical force, directed by their native good sense. They succeed in establishing a pleasant home, and in educating and rearing a family, through long and patient industry, and careful economy; and this is the manner in which those engaged in mercantile affairs, who have become wealthy, have acquired that wealth; by unintermitted effort, both in acquiring and saving. And the cases are somewhat rare, where the young farmer of good health and habits, fails of establishing an attractive home, and acquiring a competence; while it has been ascertained that out of every one hundred who have entered upon mercantile pursuits in the largest city of New England, upwards of ninety have failed. The startling but well authenticated fact, should have an influence on young men embarking in business, and upon young women, too, about making alliances which can only end with life; for they are equally interested in the welfare and happiness of the family.

Farm work requires a capital in coin, in talents, and in muscle and sinew, as well as in merchandizing and navigating the ships of commerce. When this capital is invested, farm-work is no more a labor of drudgery than any other—it is not half so much so. If this be drudgery, what shall we call the confinement of the law-office and the court-room, or the judge's bench? What the dull routine of the merchant's duties behind the counter, with his daily liability to protested notes and bankruptcy? What the daily task of the mechanic, happy if released after a ten hours' toil, or that of operators in the cotton-mill, summoned by bell and encased in codes of regulations? No—it is not the employment of the fields that is drudgery—it is the *man's mind*, that is enslaved. That mind does not spring from the sod, buoyant with life and intelligence, searching and inquiring into the wonderful operations above, beneath and around him.

Let him turn his thoughts to Chemistry in its relation to his employment, and he will soon be convinced, that no man has yet lived long enough to understand the strange yet beautiful operations constantly carried on in his trees, plants, flowers and animals. The lawyer is tied to his terms, and the merchant to his counter; the physician to his never-ceasing horse-mill rounds, the clergyman to his parish and the mechanic to his bench. But the farmer breathes the free winds of heaven on his hills, and drinks from the crystal springs that flow through his valleys. The first beams of the morning sun touch his brow amid the waving grain of his garnished fields, while he bathes his feet in the cool dews that have gathered upon the bending grass. He reclines at noon in the shade of his old trees, and walks among his springing corn, or profits by the cheerful criticisms of his wife and children upon his garden culture, as they stroll among the plants he is rearing. He goes to mill or to market at will;—attends the County Fair in autumn with his fat oxen, lusty steers, or mammoth vegetables; takes a premium on orchards, bog meadows, or corn and cabbages, while his wife bears off the palm for making the best butter, and his unmarried daughter receives the silver goblet for the best loaf of wheaten bread. He finds a day to look in upon the General Court; or, perchance, is a constituent part of that honorable body himself. He is the man to conduct the town business, for a referee, for a juror, or for any other honorable calling.

While cultivating the fields, he is in the schoolroom of nature, and it is his own fault if he does not study her ways, and make her subserve his purposes. She calls to him from her mountains, and valleys, and streams, from the air that cools his heated brow, and the dust beneath his feet. She pleads constantly for his attention through the birds of the air, and the beasts of the field, in the change of the seasons, in showers, sunshine, frost and vapor. Is there no voice in these, to him who tills the ground or fells the forest? Are these all a sealed book to him, because he is a tiller of the soil? If so, he should awaken to their perpetual call, be led to a consideration of the delights which are hourly offered to his mind, and rejoice in gratitude that he is permitted to be free upon the acres which he is gladdening by his care.

PUSH ON!

BY HENRY J. SARGENT.

Awake! and listen. Everywhere—
  From upland, grove and lawn,
Out-breathes the universal prayer,
  The orison of morn.
Arise! and don thy working garb;
  All nature is astir;
Let honest motives be thy barb,
  And usefulness thy spur.
Stop not to list the boisterous jeers,
  (He would be what thou art,)
They should not e'en offend thine ears,
  Still less disturb thy heart.
What though you have no shining board,
  (Inheritance of stealth;)
To purchase at the broker's board,
  The recompense of wealth—
Push on! You're resting while you stand;
  Inaction will not do;
Take life's small bundle in your hand,
  And trudge it briskly through.
          Push on!

Don't blush because you have a patch
  In honest labor won;
There's many a small cot roofed with thatch
  That's happier than a throne.
Push on! The world is large enough
  For you, and me, and all;
You must expect your share, of rough,
  And now and then a fall.
But, up again! act out your part—
  Bear willingly your load;
There's nothing like a cheery heart
  To mend a stony road.
          Push on!

Jump over all the *if's* and *but's*;
  There's always some kind hand
To lift life's wagon from the ruts,
  Or poke away the sand.
Remember, when your sky of blue
  Is shadowed by a cloud,
The sun will shine as soon for you
  As for the monarch proud.
It is but written on the moon
  That toil alone endures;
The king would dance a rigadoon
  With that blithe soul of yours.
Push on! You're rusting while you stand;
  Inaction will not do;
Take life's small bundle in your hand,
  And trudge it briskly through.
          Push on!

POISON OF CHERRY LEAVES.—A lady informs us that the poisonous effects of cherry leaves upon animals, as noticed in the *Farmer* a week or two ago, can be remedied, by giving the animal a mixture of vinegar and chalk in the proportion of ½ pint of vinegar to 2 tablespoonfuls of chalk. The remedy has proved effectual in several cases.

LIME WILL DESTROY SORREL.—Edmund Ruffin gives, in the last number of the *Southern Planter*, the experience of thirty-four farmers, on the subject of lime, as a remedy against sorrel. Their experience is from nine to thirty-six years, and their unanimous opinion is, that marling or liming, in proper manner and quantity, will entirely destroy the growth of sorrel, and prevent its return.

For the New England Farmer.

LITTLE THINGS:

OR, A WALK IN MY GARDEN.....No. 1.

One of my many sources of enjoyment is derived from a survey of my garden, at least twice a day. It affords me much pleasure to know that my practice now and then conforms to the experience of others. The first thing I noticed in my ramble to-day was an

ORANGE QUINCE.

I transplanted it a year ago to the border of an asparagus bed, but was in doubt whether it would do where so much salt had been spread over the ground. It grew finely, and has been covered with blossoms, the present season. I recently saw an article in the *Farmer*, recommending salt for the quince, and this seems to confirm its use. On the border of the same bed are some

HOUGHTON SEEDLING GOOSEBERRIES,

which have thrown out shoots the present season two and a half feet already. I must attribute this unusual growth to the deep trenching of the bed, which was made four feet in depth, and filled with alternate layers of earth and manure. Against a wall near by, are some

GRAPE VINES.

I have learned one lesson from sad experience. In this latitude, it is absolutely necessary to protect grape vines during winter, and on laying them down, if placed on the ground and covered up, they are quite sure to be killed, especially if there be any water on the ground. I adopted the plan last winter with my sweet water grape vines, of placing on the ground a good layer of spruce or fir boughs, laying the vines on them, and covering them with the same. They came out in the finest order, while my Isabella was badly injured for want of a similar protection.

Pursuing my walk, I look at a few hills of early

CUCUMBERS.

I brought these forward in the cheapest possible manner, simply by making a deep hole, putting in good manure, and placing around the hill four bricks laid flatwise, and on them a square of glass. Broken glass from the stores will answer just as well, which the shop-keeper will give you. After the plants are up, slip off the glass during the day in warm weather. The bricks absorb the heat of the sun during the day, and retain it during a portion of the night. They commenced blossoming the fourth of July, which is at least two weeks earlier than they can do in open air, in this vicinity. Among the many plans adopted, I have met with none better than this.

Stepping along, I saw with pleasure my

PEAR TREES,

which have grown better than any of my neighbors' trees, I suppose, because I saturated the mulching last year occasionally with soap-suds and liquid excrements. (*a*.) Just over the fence I see a native apple, which I call the

BETHEL BELLE APPLE.

I regard it the best grower and bearer of any fall cooking apple in this vicinity. The original tree has borne every year for eight years past, and nearly the same in quantity each year. The wood is remarkably healthy and vigorous, as has been proved by grafting into other stocks. The original tree has supplied my family of eight or nine persons with cooking apples from the first week in August till the middle or last of November, besides furnishing a supply for drying. It now hangs full. Attention is not sufficiently paid to secure good cooking apples in our collections of fruit.

This walk has afforded me pleasure enough for one day, a pleasure free from alloy, and especially from the cares of professional life. Who believes that Adam and Eve were not happy while in the Garden of Eden? N. T. T.

Bethel, Me., July 5, 1855.

REMARKS.—The writer of the above is a stranger to us, personally, though from the tone and spirit of his frequent communications, we cannot but feel the interest and attachment of a brother. This article is not only brief—a cardinal virtue in newspaper writing—but it is terse, compact, pleasantly expressed, takes up a single point, discusses it, and lays it down a perfect work, finished in all its parts.

(*a*.) In connection with "N. T. T.'s" practice of manuring his *pear trees*, we wish to utter a single word of warning. Soap suds and water from the chambers are undoubtedly among the best fertilizers we have for any plants, but they must be used in a diluted form. In seasons of drought they are particularly dangerous; as they are not diluted and washed through the soil by rains. We know now of dead pear trees and choice grape vines that undoubtedly were killed by the application of undiluted chamber ley and soap suds during the extreme drought of last summer. They may be used with great advantage, and in unlimited quantity, if greatly reduced in strength.

For the New England Farmer.

THE CROPS AND SEASON IN NORTHERN NEW YORK.

April was a cold and wet month; vegetation made but little progress during the month, even the pastures looked as barren as in the month of March. May came, with its cold and dry winds, and scarcely any rain fell during the whole month, vegetation languid, the cattle on the hills lowed for food, but the farmer had no hay or grain to give them, for the contents of his barns and granary were exhausted. June at last came, with abundance of rain, but cold; grass grew, though thin, from being killed by the ice and excessive freezing during the winter. July came forward with warm weather, the 2d day, the thermometer indicated a degree of heat that was oppressive to man or beast, 90°, and for the past 17 days the thermometer has ranged at 2 P. M., from 74° to 90°, which has produced, with suitable showers of rain, a wonderful change in the whole vegetable kingdom. Rye, oats and potatoes now look finely, and bid fair to become a good crop, but corn is backward. The black cut worm, in this vicinity, has injured the crop very much. I planted about the 10th of May six acres on greensward that had been to pasture for 15 years; the corn came well and looked nice, when it first made its appearance above the ground, but in 10 days time the worms had destroyed two-thirds of the spears in the field. At first hoeing I replanted the field, or the missing hills. Now, where the first planting stands, it is waist high, and the second planting is about one foot in height. I am of the opinion that should the weather prove favorable, the second planting will prove nearly as good as the first. This is the case with those who planted on old pasture land. Most of those who planted on lands that had a crop of some description on last season, the worms had not injured at all. The farmers in this vicinity have put in more crops this spring than common. Most every farmer has sowed his spring wheat to supply his family with, during another season, and the crop generally looks finely. Most farmers for the past ten years have depended upon buying western flour to bread their families with, for they said that the crop of wheat was so uncertain that they had rather trust oats than wheat. But the high price of flour has caused a revolution in their opinion, and in fact has drained their purses to the bottom. My policy has been, since commencing farming for myself, to raise my wheat; then I was not dependent on a foreign state for my bread; and for the past eight years I have annually raised about two acres of spring wheat, and have not as yet failed of raising a decent crop of wheat. My plan has been to sow my wheat upon land which was the previous year planted to potatoes; the ground is well mixed and subdued by the process of hoeing and digging the crop of potatoes; then plow and sow my wheat, after liming, as early as I can, say by the 15th of April, this season I did not sow till the 21st, on account of the land being wet and cold. The hay crop is light and backward. Meadows in this vicinity, by the excessive drought of last season and the ice of last winter, have been killed out very much. I predicted in the month of April that let the season be as favorable as it could be, we must have a short crop of hay. New seeded meadows are generally very thin, all those which have been laid down the past three years. Yours truly, J. Peck.

Low Hampton, N. Y., July 17, 1855.

For the New England Farmer.

A POTATO WORM.

Mr. Editor:—Mr. J. P. Knowlton, of this town, on visiting his potato field, to-day, discovered in the vines what he believes to be the cause of the potato rot. He brought several vines from the field, which before being cut off, were more or less wilted at the extreme tops; and on examining them with him, we found in each a hole made near the bottom of the vine, about the size of that made by a buckshot. On splitting the vine from the hole towards the top, its pith was found to be entirely eaten out, till we discovered a worm in close though comfortable quarters, from four to six inches from its entrance. The worm is about one inch in length, and of a light pink color, its back being brown half its length from the head, which was crested.

Mr. Knowlton's potatoes were planted in good soil, on high land, and the vines, as most every where else, never looked more flourishing, being in blossom, and the potatoes just forming. Judging from the present appearance and the amount or extent the worm has eaten, they must have commenced hostilities but a few days since. Any further information of the above character we shall be most happy in affording, when such facts come before us.

Corn in this vicinity looks very promising, and also grain of all kinds. Pumpkin and squash vines are rapidly reaching out for more extended territory. I have seen some within a few days that would measure from six to eight feet in length.

Hay comes in very light. It is estimated at "two-thirds" crop, though some will cut much less than this. The dull weather at present is a serious check to haymaking operations; still there has been a good quantity of very nice hay secured already.

Gardens are presenting an unusually fine appearance, and will pay a great per centage on outlay of time and money; the one most worthy of notice being that owned by David Roberts, Esq., of Salem, which has for its principal feature between *four and five acres of onions*, the most thrifty and promising of any in our wide community.

Hamilton, July 21. Z. A. Appleton.

Remarks.—The worm described above is the same as that sent us by Mr. Sheldon, of Wilmington. Its ravages have not yet been extensive.

A SHOW OF DAIRY STOCK.

The Trustees of the "Massachusetts Society for Promoting Agriculture" propose to the farmers of the State, a Show of Dairy Stock, at Worcester, on the grounds of the Worcester Agricultural Society, and with the assistance and accommodations which have been liberally offered by that society, on

Thursday, September 27, 1856.

And they have authorized the undersigned to offer the following premiums.

Class I.

For the best six Dairy Cows, which shall have been owned and kept together from July 1, 1855, to the day of the Show, and at least three of which cows shall have been bred and raised or imported by the competitors.

A first premium of	$250
Second premium	200
Third premium	150
Fourth premium	100

Class II.

For the best four Dairy Cows, owned and kept from July 1, 1855, to the day of the Show, at least *one* of which shall have been bred and raised or imported by the competitors.

A first premium of	$150
Second premium	100
Third premium	60
Fourth premium	40

Notice of intention to compete for either of the above premiums, must be given in person, or by letter postpaid, to Benj. Guild, Esq., Secretary of the Society, at Boston, on or before the 1st day of December next. The period of trial will extend from Dec. 1, 1855, to Aug. 31, 1856, both inclusive.

Class III.

For the best Durham Cow	$50
Next best	35
For the best Devon Cow	50
Next best	35
For the best Ayrshire	50
Next best	35
For the best Alderney	50
Next best	35
For best Cow of any other pure breed	50
Next best	35

Premiums will not be awarded in this class unless the milk of the competing Cow has been manufactured into butter, or cheese, and an average daily yield of 1 lb. of butter, or 3 lbs. new milch cheese, weighed as ready for market, obtained therefrom for the period of six months, preceding the 1st of September, 1856.

Regard will be had in making the awards, to the ages of the animals, the number of cows kept together, their food, and the consequent comparative expense of keeping, and their product.

Class IV.

For the best Cow of any breed, (from a herd of not less than 3 cows,) which shall have been owned by the competitor from July 1, 1855, to the day of the Show, kept for the manufacture of butter or cheese, for a period of six months, immediately preceding the 1st of September, 1856,

A first premium of	$50
Second premium	40
Third premium	30
Fourth premium	20

Premiums in this class will not be awarded unless there has been an average daily yield of 1 lb. butter or 3 lbs. new milch cheese, for the whole period of trial, weighed as ready for market.

Class V.

For the best Cow kept for milk, and owned by the competitor from the 1st day of July, 1855, to the day of the Show.

A premium of	$40
For the next best	30
Next best	20
Next best	10

Premiums in this class will not be awarded unless there has been an average daily yield of 25 lbs. of milk for a period of six months immediately preceding the 1st day of Sept., 1856.

Competitors for all the above classes of premiums will be required to file with Wm. S. Lincoln, Secretary of this Committee, on or before the 10th day of September, 1856, their statement in writing, under oath, or affirmation, to the following facts:

The age and breed of the Cow; the place where, and person by whom, bred and raised, or imported, the time of being dried last, and of last and of next calving;

Time of turning to pasture;

The whole number of Cows constituting their dairy; and whether kept together;

Quantity of milk yielded by each competing cow, ascertained by the weight and beer measure, of each milking after strained, for the first three days of each month of trial, and when the milk is manufactured, the amount of Butter or of Cheese yielded by the competing animals during the whole period as specified in each class. In classes No. 1 and No. 2 the milk of the competing cows may be manufactured together. In all cases the amount of Butter and Cheese produced by the milk of the three days must be ascertained. It will also be required that the statement shall give full and accurate account of the times of stabling, the method of management of the entire dairy during the period of stabling, the process of manufacture pursued, and the kind and quantity of every article of food furnished the animals, either while in the barn or at pasture, distinguishing between said periods.

Class VI.

For the best Durham Bull, not less than 1 year old	$50
For the second best	40
For the third best	25
For the best Devon bull, not less than 1 year old	50
For the second best	40
For the third best	25
For the best Ayrshire Bull, not less than 1 year old	50
For the second best	40
For the third best	25
For the best Alderney Bull, not less than 1 year old	50
For the second best	40
For the third best	25
For the best Bull, of native or mixed breed, not less than 1 year old	50
For the second best	40
For the third best	25

A written statement under oath, signed by the competitor under this class, must be filed with the Secretary of this Committee, at the time of entering the animal, giving the age, breed, place where raised, person by whom bred and raised or imported, method of management and kind and quantity of any article of food furnished, other than Hay or Grass, subsequent to the 1st of March, 1856.

In all cases competitors must be the actual owners of the animals entered by them, on the first day of July, 1855, and such ownership must have continued to the day of the Show.

No animal will be allowed to enter into competition in more than one class.

All animals offered for competition must be entered with William S. Lincoln, the Secretary of this Committee, in Worcester, on or before Wednesday, the 26th day of September, at 12 o'clock at noon, and must be exhibited upon the grounds of the Worcester Agricultural Society, on the day of exhibition, at 8 A. M., and remain till 3 P. M.

Travel.

The Trustees will pay at the rate of 12 cents per mile to the owners of such animals as obtain premiums, and which are brought or driven more than 10 miles from the place of exhibition, computing from the place from which the animals come; also to unsuccessful competitors the like sum, if upon the report of any Committee, such an indemnity for expense should be merited. Travel will only be allowed one way, and only one travel will be allowed to any competitor.

Blanks for return of particulars required in the certificates will be sent to persons who give notice of intention to compete.

A rigid adherence to the foregoing rules will be required.

Skilful men from different parts of the State will be seasonably appointed to adjudge the premiums, and no premiums will be awarded in any class where animals of sufficient merit have not been exhibited.

☞ Premiums will be paid by Thomas Motley, Jr., Esq., Treasurer, at Boston, thirty days after their award, but if not claimed within six months, they will be considered as relinquished.

Robert C. Winthrop,
George W. Lyman,
James W. Paige,
Stephen Salisbury,
Wm. S. Lincoln,
} *Committee.*

Boston, June 13, 1855.

Constituents of Bodies.—The muscles of a body are what is usually called *lean meat*—the skin, hair, horns, and hoofs are glue—this shows why they are good for manures, as glue contains fifty-five per cent. of carbon, eighteen of nitrogen and twenty two of oxygen.

THE CURCULIO

This little depredator seems to defy the effort of all those persons who have attempted to do away with its ravages. It is indeed a true weevil, as much so as the *Curculio granarius*, or grain weevil, which does so much injury to housed wheat.

The popular opinion that the plum weevil, (*Rhynchœnus nenuphar*,) otherwise known as the curculio, cannot fly, is a mistake; for its wing-sheaths cover two transparent wings, by means of which it is enabled to pass from plum to plum, and deposit its eggs. Before depositing an egg it makes a crescent-like puncture in the particular plum in which it is about to be laid, which will soon be hatched, producing a whitish, footless grub, having a light brown head. Indeed, in some instances I have found as many as three larva in a single plum, but this is a rare occurrence. The young larva then feeds upon the plum, and eventually finds its way to the stone, the passage being oblique and very irregular. Soon after the eggs have been deposited, gum begins to exude from the fruit, and in some instances in very large quantities. This exudation seems to so prevent the full development of the fruit, as to cause it prematurely to fall from the trees, thus permitting the insects, when about to change to the pupa state, to pass into the ground. Between three and four weeks seems to be the time necessary for them to undergo this metamorphosis, when the perfect weevils come forth ready to add to the injuries perpetrated by their progenitors.

The perfect insect is about two-tenths of an inch long, and furnished with a snout, by means of which it is enabled to bore the fruit. The hind part of each wing-case is furnished with a yellowish spot. The wing-cases are of a blackish color, their surface being ridged, and presenting an elevated appearance in the centre.

Plums are not the only fruit attacked; nectarines, peaches, cherries, apples, and quinces, are also preyed upon by the curculio. I have been told that not even peaches in the southern States are exempt, but I have had no opportunity of making any observation corroborative of this statement.

Not one of the numerous remedies proposed for doing away with the ravages of this little tormentor, has yet brought about the desired result. It seems to me that one important observation has yet to be made. I refer to state and place in which it passes the winter; for if this fact were fully brought to light, it would be some clue to a preventive.

It should be borne in mind, however, that in the absence of more accurate knowledge, such remedies as have a tendency to lessen their evil doings, should be observed, such as the gathering of the fruit at intervals during the season, which should be burned, thus killing the grubs, so as to prevent all possibility of their passage into the soil. To destroy them while in the grub state is an excellent practice, for by preventing their undergoing the natural change, and coming forth weevils, the future production of countless myriads is prevented. In order to lessen the injuries of those which have already come forth as perfect weevils, a sheet should be spread upon the ground around the body of a tree, and if the branches be suddenly jarred, some of the weevils at least will fall, when they may be collected and destroyed; for when disturbed, they gather their legs and snouts close to their bodies, and unless under close examination, present a lifeless appearance. If this precaution be frequently made use of, the deposition of many eggs, and consequent production of insects, will be prevented. The numerous other remedies which have so often been published, such as the application of white-wash and glue, sulphur, lime and water, as well as gas-house lime, etc., seem to be entirely inefficient.—J. Payne Lowe, in *Working Farmer*.

THE CANKER WORM.

The recent havoc which this pest has made on the fruit and other trees in this section of Massachusetts, naturally leads our attention to it, although on our own farm at Concord, twenty miles west of Boston, we have never seen one of them.

The habits of this destructive insect have been carefully investigated by men abundantly competent to do the subject ample justice, and who have prosecuted their labors with a zeal and energy entitled to much praise. In Harris's work on "Insects Injurious to Vegetation," there is a minute and carefully drawn account, which all may read with profit. The "canker moth" is the *Phalæna vernata* of Professor Peck. The insect is thus described:

"His antennæ, or horns, are thread-like; but when viewed through the microscope, are found to be beset, on each side, with a very short, hairy fringe. His wings are thin and silky, and expand about one inch and a quarter. The fore wings have a distinct whitish spot on the thick edge, near the tip, and are crossed by two jagged, faint, whitish bands, more or less distinctly bordered with black lines, or dots. The hind wings are rather darker than the other pair, and have a small dusky spot near the middle. This is the usual appearance of the male, which, however, is subject to some variation in size, and in the greater or less distinctness of the spots on the wings. The females are plump and oval in shape, and are also ash-colored above, and paler or whitish beneath, and measure about three-eighths of an inch in length. They have two thread-like horns, and six long slender legs, and on each side of the belly near the head, there may be seen with a glass, two little scaly tufts, pressed close to the body, where the wings of other moths usually grow."

The coupling of these insects ordinarily occurs very soon or immediately after they emerge from their winter dormitories in the soil, and sometimes before they ascend the trees. The insect is very destructive and very prolific. The eggs are deposited in the bark, in the crotches of limbs, and, indeed, in almost every place where they can be attached. They sometimes appear in clusters of from fifteen to seventy-five in number, but it is not known whether the eggs forming these clusters, are the product of a single insect, or of several; nor has the number of eggs ordinarily produced by a female moth been accurately ascertained. The eggs are about one-fourteenth of an inch in length, oblong in shape, and deposited side by side, each on its end. A peculiar substance of a very viscid consistency, and which indurates and becomes strongly glutinous on exposure to the atmosphere, attaches them firmly together, and to the tree, or any other substance to which they are appended. These eggs may be easily destroyed by acids or alkalies applied with a sponge or brush.

Professor HARRIS mentions nearly every remedy that has been resorted to in order to prevent the ascent of the worm, and those persons troubled with them should consult his work. Some of them are a broad belt of cloth or strong paper, six to twelve inches wide, fastened around the trunk with strings, and apply the tar as early as the first of November, perhaps in October, and renew it daily as long as the insects continue rising.

Another method is to fit a collar of boards around the tree, and smear with tar underneath. Collars of tin-plate, belts of cotton wool and troughs of tin or lead, filled with oil, have all been resorted to with greater or less success. Showering the trees with air-slacked lime, and sprinkling them with whale-oil soap water, has sometimes proved beneficial.

The apple crop in the vicinity of Boston, where it is usually large, will be greatly reduced this year, through the ravages of these minute yet destructive insects. He who will devise some certain remedy against their attacks, will become a public benefactor.

WILLIS' PATENT STUMP PULLER.

The statement copied from the *N. E. Farmer*, on page 121 of this No., we understand to be from the pen of Lieut. Governor Brown, editor of that journal. Since reading it, we have visited Orange, examined the machine, and seen its power fully tested. It is all that Mr. Brown has represented; and in two or three particulars, we think, is somewhat more;—1st, it is equally as well adapted to drawing out stones, removing buildings, or almost any other business requiring a high power, as to the pulling of stumps; 2d, it will operate without unreasonably severe effort on the part of the men and team, more rapidly than Mr. Brown represents; 3d, it has come to its present improved state, slowly and by successive trials; did not come from the brain of a theorist, as Venus is said to have leaped from the brain of Jupiter, all beautiful and mature; armed *cap-a-pie*, ready to love or to fight, but resulted from the experience of a practical man, one thoroughly schooled in the rough and tumble business of drawing rocks and stumps.

For eight years, Mr. Willis, in as wide a region as can well be found, has been making the rough places plain. He commenced with a rude machine of his own construction, following the lumbermen, and tearing up what of the old pines they had left in the ground. As exigencies required, he made alterations, tried them, and adopted or rejected them, accordingly as they answered, or failed to answer, his purpose—that of pulling stumps to his own satisfaction, and that of his employers. In this way the rude machine with which he began has come, by slow degrees, to be the one he has recently patented. We understand he has sold the right to its use for the four counties, cornering on the place of his residence, and that the individuals who have purchased these county rights, are selling out town rights satisfactorily, while yet it is hardly known beyond those limits. The fact of its slow, practical growth, in connection with the ready sale it meets where best known, would seem to be a strong argument in its favor.

But in commending it, while we are pledged to commend nothing which we do not believe to be worth buying, we are guided principally by what we have seen of its working. Mr. Willis took us into a field, which must have yielded a very large crop of pine boards. His force consisted of two men, neither of whom had ever worked at the business before, and a small pair of oxen. He said, "which stump will you see taken out." We selected the largest, the *ugliest* and the worst situated stump in the field. He hitched to it, as described by Gov. Brown, and lifted the great circle of roots and adhering earth, raising the side farthest from the machine in advance of the other side, till it stood at an angle of 45 degrees. At this point the men knocked off the earth, letting it fall back into the hole, the yellow subsoil at the bottom and the darker top soil above it. He then worked the machine again, and drew it along until the last root was detached. The time of the whole operation did not seem to be more than eight or ten minutes, but was not measured. He then drew up eight stumps, large and small as they came, in 30 minutes, as measured by the watch; and neither the cattle nor the men appeared to work faster than would be consistent with a long and steady pull at the business. He stated, and we thought proved, that he could clear an acre a day, with a force which could be afforded ,including the use of the machine, for ten dollars a day.

We learn from Mr. Willis, that in view of the prospect that he will be able to manufacture but few machines, compared with what will be wanted, he is willing to sell either State or County rights for manufacturing and using them. We advise any who may feel interested in the matter, to visit Mr. Willis at his manufactory, at Orange, which is on the Vermont and Massachusetts Railroad, about 16 miles east of the Connecticut river. He will afford them the best possible means of judging of the capabilities of his machines; and we have no doubt will deal with them liberally. It might not be well for every farmer, perhaps for no one, to be at the expense of procuring one of these machines simply for his own use. But if they were distributed about so that one or two should be owned in a town, and worked by the owner, we should think they might be put to many valuable uses; and especially that they might become an important auxiliary to a neater and more profitable husbandry than that of cultivating around rocks and stumps.—*The Farmer, by Professor Nash.*

TALL RYE.—A correspondent writes us that he saw on the farm of Mr. HENRY COBB, of Amherst, Mass., on the 20th of June last, a stalk of rye 7½ feet in height, and it had not then attained its full growth.

For the New England Farmer.

LETTER FROM THE COUNTRY.

Sunday — Extensive Prospects — Lakes, Mountains — Recollections — The Haying Season — Prospect of the Crops — Hay Crops — Country Visits and Watering Places — Visit to Lake Massabesic—Chowder—Music—Effect of Location upon Character—Invocation.

Chester, N. H., Aug. 12, 1855.

MY DEAR SIMON:—Forgive the familiarity, my dear Lt. Governor, but it does come *so natural*, addressing you from this, the old place of my nativity, and your childhood, and boyhood, and youth, to call you by the old familiar name, by which, more than forty years ago, I used so often to address you, that you will, I know, excuse *me*, although George IV, never forgave Beau Brummell's—"George, ring the bell!" You are more forgiving than the king, I trust.

This is Sunday morning, and a glorious morning it is too—precisely such an one as old Herbert had in his mind when he composed his beautiful stanzas, commencing—

"Sweet day, so cool, so calm, so bright,
The bridal of the earth and sky."

I am not at the "old homestead," from which my brother Henry—I beg his pardon—*the Judge*, dates his interesting letters. Let me say, in parenthesis, that if "my feverish longings for fame, and dreams of distinction," were not all gone, I should be trying to *get in* as one of the editors of the *New England Farmer*—"Governors and Judges!" haven't you a vacant Generalship, or *sich* like, that you could bestow on a fellow? As I was remarking, I am not at the old homestead, but am, at present, sojourning with his Honor, the Sheriff of the County of Rockingham; in good hands, you see, and from this spot where you and I have stood many's the time and oft, at this blessed moment a prospect is presented worth a journey from Boston to witness. You know what a sweep of horizon is presented to the eye from this place—do I exaggerate in saying hundreds of miles? I think not. Well, there it lies, the intermediate space dotted with villages, farm-houses, green fields, forests, &c., all glittering beneath the just-risen sun, and every valley filled with mist, presenting the exact appearance of lakes and lakelets, studded with islands, headlands, and peninsulas—in the far distance gleams, like a thread of silver, what the oldest inhabitants have ever regarded as the ocean. Not one cloud is to be seen, not one breath of air can be felt, and all that row of elegant trees mentioned in the Judge's letter show not the stirring of a single leaf. If a man's thoughts do not ascend through such a scene as this, up to Nature's God, he must possess a hardened heart, and be, indeed, a hardened sinner.

I am here, with all the dear ones of my household, as you are aware, on a visit to my kinsfolk, and to exchange for a short time, the heated atmosphere of Washington City, for the cool and refreshing breezes of New Hampshire. Either those breezes, or the excellent feed with which the Sheriff's better half entertains her visitors, (and you have often tried it,) have already added to the fair proportions of your humble servant, as our friend Greenough's steelyards testify.

I am among the farmers here. Haying is the order of the day. The wet, and somewhat backward season, has delayed the gathering in of the upland crop of grass even to this late day. When you and I used to swing the scythe here, it was not often that we gathered hay from the upland after the advent of August; but this year, I think nearly all the hay in this vicinity has been cut since the 25th of July, and much grass still remains standing. The crop is a good one, and, thanks to the new invention of "hay-caps," it has, notwithstanding the "long spells" of rainy weather, been *got in* well. A friend of ours, who resides here, but spends considerable time in Massachusetts, and who has recently returned from there, told me a few evenings since, that the farmers in the vicinity where he has been, had heard of hay-caps, but had never seen any, and came to him for a description of them. I presume you have enlightened your readers on the subject, though I do not remember to have seen a description of them in your columns. Those used here—and they are getting into general use—are thus made and used; viz:

For one cap, take 4 yards of yard-wide cotton cloth, cut it in two pieces, and sew them together, so as to make a square. Loop up each corner so that a piece of common cod-line will pass through, tie in loops of line, spread the cap over the haycock, and with 4 sharpened sticks of about 18 inches in length, fasten the corners, by passing the sticks through the loops, either into the hay or the ground. A cock of hay thus protected, may stand through a long storm, uninjured.

The crops in this vicinity, as all over the country where I have been, promise an abundant harvest.

In the Judge's "Letter from the Homestead," contained in yesterday's *Farmer*, he remarks very properly as follows:

"How rational men and women from the cities can be persuaded to pass the summer at the beaches and fashionable watering-places, parading round on the sea-shore without shelter or shade of any green thing, suffering the tortures of Regulus, who was exposed by his enemies to the noon-day sun with his eyelids cut off—how they can endure the glare of the ball-room in dog-days, and the crowded chambers of fashionable hotels, not to mention the killing conclusion by way of paying the bills—how all this can be translated into pleasure by rational people, when the peaceful, quiet hills and valleys of the country invite them to health and freedom from restraints of fashion and artificial life, passes comprehension."

Exactly the thoughts that have passed through my own brain, when I have been crammed with all my family into a 7 by 9 room at Saratoga, or at some of the watering-places—hot as blazes—eaten up by flies in the day-time and musquitoes at night, sweating under the glare of gas-light in the ball-room in the evening, and under the burning sun by day. *Do* you remember *our own* experience at Piney Point one burning August? We went *for* pleasure, and perhaps we might, had we been provided with places in which we could have slept, passed some hours (to quote Byron)

"In dreaming this was pleasure,"

but, alas, we could not sleep, and therefore had not even the consolation of the *dream*, much less the *reality*. You have not forgotten it, I know.

Now, if the real health and pleasure seekers, would come here, where the summer days are delightful, and however *they* may be warm, there is always fresh and salubrious air to breathe, and the nights are always comfortably cool, they would find what they seek. And then we have the old forests all around us, and the beautiful lake Massabesic, spreading its broad and pure waters in our immediate vicinity, where we can go and sail and fish, and have chowder, and in which we can bathe and swim, and disport ourselves, fearless of surf and sharks and *sea-serpents!*

Let me describe to you one day of the pleasures of old Chester. On Friday morning last, in accordance with previous arrangements, nearly forty of us, old and young, started for the Massabesic. A large stage wagon was put in requisition, in which nineteen of us were comfortable stowed, and amongst them the Register of Probate of the County of Suffolk and his wife and daughter. The others went in such carriages as they could conveniently procure. We arrived at Auburn between ten and eleven, and found, upon a plateau of land, in front of which, spread far and wide the beautiful lake, and behind which arose, what we modestly term, Mine-hill—in fact quite a tolerable mountain—a beautiful arbor, erected for our accommodation, with a table set the entire length of it, and all the necessary appliances to make us comfortable and happy. The day was lovely. As soon as our preliminaries were adjusted, the party broke into groups. Some went fishing, some sailing, some bathing, and the younger fry were amused by the erection of a swing in an adjoining grove.

At one o'clock, P. M., the chowder, prepared by our excellent host and hostess, was brought on, and the table was loaded with good things, in abundance, and all ate and were filled. Any one would have readily answered to the question of the stage-driver—"all full inside?" as Charles Lamb did—"I don't know how it is with the rest of them, but that last piece of pudding did the business for me!" After dinner, most of the party made an excursion to the top of the hill, from which the view is very extensive and beautiful, and there, beneath the old forest trees, from sweet and ringing voices, were sent forth, upon the summer breeze, tones to awaken the best feelings of the heart. "The Star Spangled Banner" was sung in full chorus. "The Old Folks at Home" were not forgotten. "Auld Lang Syne" came back fresh and glowing, and many other songs of the olden and of the modern times rang out on the joyous air. The party from the hill having retired to the arbor, and all being there assembled, "Auld Lang Syne" was joined in by all who could raise a note, and then the party prepared for its return. On the way back we paid a visit to "The Devil's Den," but, his Majesty being out, our stay was not long, and, at sunset, we were all safely back at our respective domiciles, perfectly satisfied that we had spent the day in a manner as satisfactory as it could well be spent.

In this region of country, cultivating the soil is the main purpose of the people; of course there is nothing of the starched and stiff formulas of the city. Every man, woman and child is taught to wait upon him or herself, and consequently every man, woman and child is independent, and all is free and easy in their social intercourse. A hearty welcome is given to all comers who are entitled to be esteemed for the ordinary virtues of life—talent is respected, as it should ever be, in the humblest individual, but *rank* and *dollars* cannot purchase either respect or attention, unless combined with adjuncts deemed of far greater importance—the power to instruct, or please, or to render those about you contented and happy.

The location of a people, as it seems to me, has much to do with their characters. Here, where an immense expanse of country is ever open to the view, the tendency of the mind, as it gathers in knowledge, is to expand and become enlarged in all that does honor to human nature—the soul swells as the eye embraces a magnificent prospect, and one with an imagination whose vision has never embraced more at a time than the single street of a city, would go almost into ecstacies, could he be suddenly placed at any point like this, where the eye could rove over thousands of square miles of landscape unimpeded. Then the natural tendency of the opening mind, whose daily vision is thus enlarged, is to enlarge with it, and to become generous and noble in its impulses!

God bless the good people of old Chester.

Very truly and faithfully yours,

B. B. French.

Large Eggs.—George W. White, Esq., of North Cambridge, handed us four eggs this morning, which weigh *one* pound. They were laid by the same hen, and three of them in three successive days.

Mr. George Hayes, of North Cambridge, and one of the best farmers of Middlesex County, is the owner of the Biddy, and possessor of the secret of producing eggs that will weigh a quarter of a pound each! When hams are ripe, wouldn't it be a treat to dine with Mr. Hayes!

For the New England Farmer.

LITTLE THINGS:

OR, A WALK IN MY GARDEN.....NO. 2.

As I have extended my walk, I come up to a patch planted with

SMALL POTATOES.

I apprehend that your correspondents overlook one important principle in discussing this subject. The potato is not a root, but a tuber, an excrescence as it were from the stock. I suppose it to partake somewhat of the nature of a bulb, which will develop itself remarkably under favorable circumstances, essentially the same as any bulbous or tuberous plant. All such plants require a combination of the most favorable circumstances for their complete development. Plant large tubers and a drought may produce small ones, but I do not see as their capability of reproducing large ones the next year can be seriously impaired; but follow up the plan, and it must be an exception to nature's operations, if in a series of years the product be not dwarfish.

I have suffered severely for three years past, by planting small potatoes. It has so happened that we have had a severe drought soon after planting, which has impaired the vitality of the plants exceedingly. They came up looking feebly, and never recovered the shock.* The same remark applies to cutting out the eyes. If correspondents will bear this fact in mind, it may reconcile some of their conflicting testimony.

I remember hearing my father relate an experiment which he made about the year 1812. He bought a bushel of potatoes, which were harder to pay for at that time, than twenty-five bushels would be to a young farmer at the present day. He took a pointed penknife and cut out the eyes so as to diminish the bushel about two quarts after the operation, and planted them on burnt land, and harvested thirty-four bushels of handsome potatoes.

After all, I like what my neighbor, the Captain, says: "I like to plant the same kind of seed as I would raise."

Possibly you may remember some experiments which I communicated to the *Farmer*, on protecting

PEACH TREES.

I varied the experiment of protecting them last winter to ascertain how much exposure they would bear. I tied the limbs together and wrapped round them a single turn of furniture matting. One of them had a foot of the top extending exposed above the matting. The trees came out bright as you could wish for, although the thermometer was down to 37° below zero once during the winter, the lowest ever reached in this place. It was curious to see how effectual the protection was, for the portion of the tree exposed above the matting was killed just to it, and no further. I consider the question settled in regard to protecting the peach in this latitude, after a trial of seven years. The only question with me is, how they shall be treated so as to bear.

A step further brings me to the

CHERRY TREES,

which have suffered severely the past winter. There is a lesson yet to be learned in this vicinity on this point. It will never do to rely on the catalogues of nurserymen in this particular. We want some varieties that will stand our winter, without protection. I know of none to be relied on, except the common Kentish or Pie cherry, which is perfectly hardy here. I wish some correspondent would tell us what to do here in Maine. I was astonished to see such splendid cherry trees in Nova Scotia, while recently there; they were large, and so glossy that you could almost see your face in the bark. One man sold cherries from his garden last year to the pretty little sum of one hundred and twenty dollars. N. T. T.

Bethel, Me., July 20, 1855.

For the New England Farmer.

INCREASED ATTENTION TO AGRICULTURE,

AND ITS CONNECTION WITH CHEMISTRY.

BY JOHN GOLDSBURY.

Agriculture, for a long time, was almost wholly abandoned, and continued to be neglected, till the introduction of the feudal system in the fifteenth century. This gave every man a distinction and rank according to the quantity of land he occupied. Nothing contributed more to give an importance to agricultural pursuits, than the introduction of this system, which gave the tenant who cultivated the soil, as well as the landlord who owned it, political privileges which were enjoyed by no other members of the community.

Notwithstanding all this, England has done more for the advancement of agriculture, during the last fifty years, than during double the amount of years in any preceding period of her history. She has always been engaged in war. Her history is made up of little else but accounts of sieges, of battles, and of conquests. While she has been so much engaged in foreign and aggressive wars,—while, in the language of her own statesman, "she has been carrying her arts and her arms to the four quarters of the globe," she has left her own soil at home, uncultivated and unproductive. Within the last fifty years, she has given more attention to agriculture; and her efforts have been crowned with success. She has more than doubled the amount of her agricultural productions.

The same remarks apply as well to the French; nay, they apply with more force to the French than they do to the English. For the French have had an equal amount of wars to carry on, while they have suffered more from the effects of bad government. Since the revolution, they have made some advancement in agriculture, but are still far behind Great Britain, notwithstanding they have a climate and soil adapted to every variety of vegetable growth. In all parts of the continent of Europe, increasing attention is paid to this subject. In Lombardy and Flanders, it is carried to the highest state of improvement.

In all parts of the world, increased attention has been paid to the cultivation of the soil. In the old and new world, and in both hemispheres, men are beginning to see, that an all-wise Creator has decreed that plants and animals should derive their subsistence chiefly from the soil, and that all the elements of vegetable and animal matter are to be found in the soil. What these elements and ingredients are, it is the province of the chemist to inform us. The chemist has given us all the knowledge he has on the subject; the air and the water, the soil and the subsoil, have each a part in their possession, and should each be made to contribute a share. Nature, in the production of a perfect plant, does not restrict herself to the animal, vegetable or mineral world. It is highly probable that the newly-created world was, at first, entirely a mineral mass of matter, from which vegetables soon grew abundantly enough to support all animated nature. Geologists generally suppose the action of the elements for an indefinite length of time, was necessary to fit it for the abode of plants and animals; but it is believed that the action of the frost, with the winter's rain and snow, is a powerful fertilizer in this climate; and that fall plowing, and, occasionally, deep plowing, should go together.

Farmers are beginning to see, that the continual cropping and carrying off the products of the soil, year after year, without making any returns by manuring and enriching it, tends to exhaust the soil. Plowing and harrowing, stirring and pulverizing the soil are not alone sufficient to restore the properties which have been taken away by the crops. In addition to these, lime, potash, phosphate of lime or bones, common wood ashes, soot, salt, saltpetre plaster of paris, and human excrements, should be mixed with the soil in different proportions, according to the nature of the soil. Besides, the farmer can find, sometimes by the roadside, and always in swamps, a rich deposit for the supply of food for his plants. The business of composting manure by the use of muck and other ingredients, such as green vegetable matter mixed with mineral substances, is of the highest importance to the farmer.

Chemists have analyzed almost all the useful vegetables and fruits, and ascertained the exact proportion of all the elements which enter into the composition of each. Their method of analysis is, first to dry, then to weigh, then to burn and weigh the ashes, and then to analyze the ashes. The ashes are supposed to contain all the mineral substances which vegetables draw from the earth; and these substances must be restored to the earth in some way or manner, in order to secure a good crop afterwards, especially if it be of the same kind. For if this abstraction from the soil of certain properties goes on year after year, for considerable time, the soil will become exhausted and unproductive. The mineral substances found in plants must first exist in the earth, and must come from the earth; otherwise the plants cannot grow there.

Chemists have not only analyzed almost every article used as the food of animals and of man; but, also, every part of the animal body,—the bone, the muscle, the fat, the milk, the skin, the horns, the hoofs and the hair. These are all formed from the food which animals consume, and are consequently all drawn from the earth. And when we consider the numbers of cattle, sheep, horses, hogs, poultry, &c., which have been driven or carried away from the country to some distant market, no part of whose bodies has been returned to the same soil to preserve its fertility, we are surprised, that the soil from which so much has already been subtracted, should continue to produce so much as it does. This continual skimming of the soil and carrying off the crops, is the reason why the once rich and prolific soil of Virginia is now in many parts no longer able to raise its former staple productions, wheat and tobacco; while, on the other hand, China, which has existed many thousand years, continues to be as populous and productive as ever, because she exports nothing, and wastes nothing that is derived from the earth.

SONG OF THE HARVESTERS.

We gather them in—the bright green leaves,
With our scythes and rakes to-day,
And the mow grows big, as the pitcher heaves
His lifts in the swelt'ring bay.
O ho! a field! for the mower's scythe,
Hath a ring as of destiny,
Sweeping the earth of its burthen lithe,
As it sings in wrathful glee.

We gather them in—the nodding plumes
Of the yellow and bended grain,
And the flash of our sickle's light illumes
Our march o'er the vanquished plain.
Anon we come with the steed-drawn car—
The cunning of modern laws;
And the acres stoop to its clanging jar,
As it reeks its hungry jaws.

We gather them in—the mellow fruits
From the shrub, the vine and tree,
With their russet, and golden and purple suits,
To garnish our treasury.
And each had a juicy treasure stored
All aneath its tainted rind,
To cheer our guests at the social board,
When we leave our cares behind.

We gather it in—this goodly store,
But not with the miser's gust,
For the Great All Father we adore
Hath but given it in trust:
And our work of death is but for life,
In the wintry days to come—
Then a blessing upon the Reaper's strife,
And a shout at his Harvest Home.

For the New England Farmer.

SOURCES OF PLEASURE FOR THE FARMER.

MR. BROWN:—How pleasant, during the long winter evenings, when the cattle are all housed and perfectly cared for, and the work of the day is done, to sit down in the old arm-chair, before the bright fire, with happy faces around you, and such papers as the *New England Farmer* to read. What if the storm-king does reign without? Our hearths are secure—we fear it not. The summer shall chase it away, and the calm shall succeed it.

During the long evenings, or in leisure moments, I love to snatch a paper or book, and pore over the thoughts of others, and weave the rich gems of thought and bright figures into my own web of knowledge. And I love to read the Book of Nature too, and receive her lessons, fresh and at first-hand. And thus her teachings may not be distorted by ignorance or prejudice—the channels through which they sometimes come.

I often feel as though I would take my pen and give you some of my musings, as I pore over the leaves of Nature's own book. I think it well that the farmer should be a reading man, but he should be a *thinking* man, too. It is not safe for him to trust entirely to the thoughts of others. Nor should he be dogmatical in his own views. Books and papers are like crutches and spring carriages to the mind. He who suffers himself continually to be carried about by them, may always be lame and weakly, but never the hearty robust, strong man, like him who walks. The proper ground for the farmer, as well as all others, to stand upon, is a *dignified independence*, that accords to others the right of thinking for themselves, and claiming and using the same right in return. There is too much dogmaticism on the one hand, and credulity on the other. It may be difficult to steer clear of *breakers*, but it is worth the while trying.

If the farmer would keep his eyes and ears wide open—cultivate and discipline his powers of observation, and learn to *think for himself*, as well as to make just discriminations respecting the thoughts of others; he might save himself much time and trouble, and be the happier for it. J. T. W.

Marlboro', N. H., 1855.

For the New England Farmer.

SMALL POTATOES FOR SEED.

Friend Brown:—Feeling deeply interested in the subject of agriculture and its kindred pursuits, I propose, through the columns of your widely-read journal, to furnish a fact or offer an opinion, now and then, upon matters therewith connected. Should this meet your approval, it may be as well to commence while the *resolve* is upon me.

And first—are small potatoes equal to large ones for the purpose of reproduction? I can, by no means, agree with your correspondent, S. P., in his course of reasoning on this subject—to my mind, much of it is not only fallacious, but pernicious in the extreme.

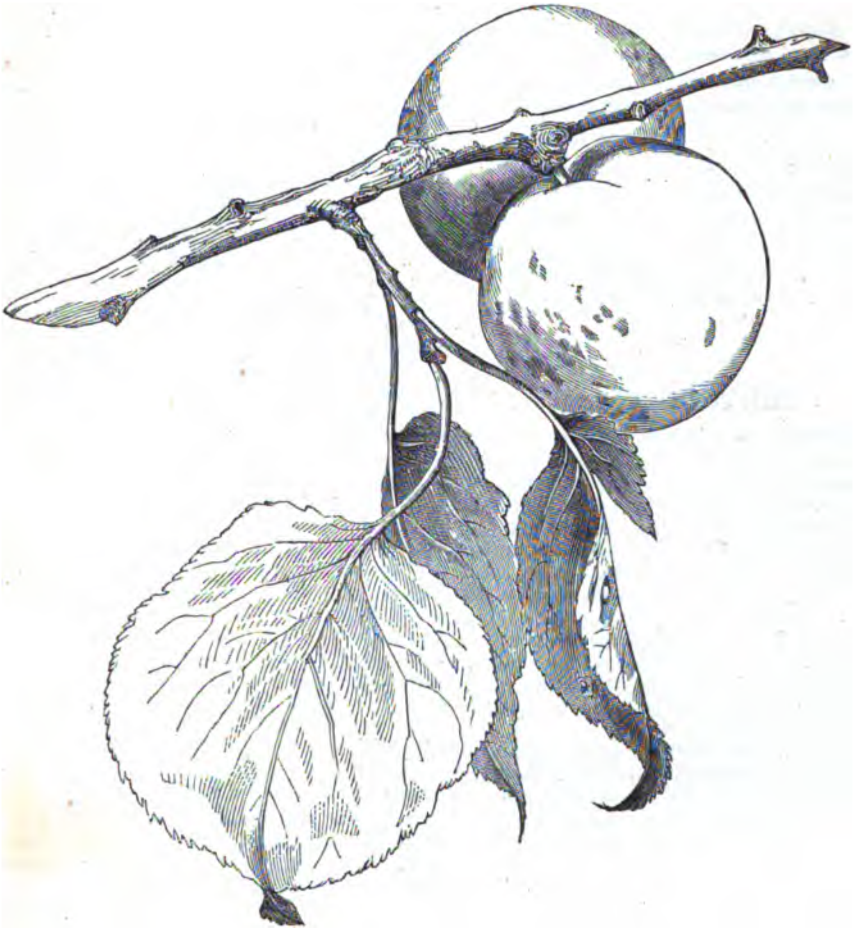
The wise axiom, "that there is but one right way to do a thing," will hardly be found, as he contends, contradicted by the workings of nature. Nay, I fancy it can be there verified to a demonstration. It is quite true, that at times, she performs her offices in different ways—as instanced in the reproduction of the potato. But can we infer from this that the way pursued is not in each instance "the one right way," since the means employed are ever the best adapted to the end in view? Or shall we conclude that, since Nature is not limited in her operations to a single way, any way by which man can accomplish his purposes is equally as "right" as any other? It would hardly be thought much out of the proper course for nature to produce potatoes from the seed, since it would answer her ends as well. But it might be viewed in a very different light in the farmer, as it could hardly serve his purpose at all. Possibly it will require no very great power of argument to convince even the most obtuse, that in this particular case, at least, there is a "one right way." That there is in every case, is equally certain, and constitutes, no less in farming than in every other pursuit of life, a great truth seldom lost sight of but with mischievous results. I am far from certain that S. P., after all, is not equally sensible of its importance, since he lays it down as a "great principle," "that the farmer depends upon facts wholly." Now facts are only useful to those who hold to a "one right way," and are seeking it by the light of experience.

As to the employment of small potatoes for seed: We should in this, as in all other things, conform to the laws of nature. Now, it is clearly a law of nature, "that the larger and more fully developed the seed, the more thrifty and vigorous the plant, all other things being equal." Who shall say, then, that the same law does not govern plants that are propagated by tubers? Nay, is not the reason for this result much more obvious in the one case than in the other? But, says S. P., we want facts, not speculations! True, and yet the knowledge of facts is, in a very great degree, the fruit of speculation. The science of agriculture, like that of chemistry, is eminently experimental, and experiments are wholly the results of speculation. But to the point. There is one fact which he insists upon, that, to my mind, is quite essential to a right understanding of this matter, and conclusive against him. Namely, "that large tubers are of artificial growth." This is unquestionable as to potatoes, their present size being the result of a gradual development under cultivation,—which cultivation consisted in part of a *constant selection of the larger tubers to seed from.* The seed of the potato produces tubers perfectly matured and of full, *natural* size, the first year, but it requires several years of careful culture, and a constant selection of the larger and more fully developed tubers for reproduction, to bring them to perfection. And then, as he very justly observes, there is a constant tendency to revert to their original type. Now, it must be obvious from these facts alone—the artificial growth of the large tuber, and its tendency to revert to its natural state,—*that the immediate product of small potatoes can never equal that of large ones, with similar culture.* This may be all a matter of speculation, but it is so legitimate and logical a deduction from his own facts, that I have faith to believe that even S. P. will consider it conclusive.

This "small potato doctrine" has not even the poor merit of novelty. It originated very possibly with the first "planter," and, appealing to the cupidity of man, has out-lived a host of fallacies, far less preposterous or pernicious. For years it has shed its blight over our agricultural interest. For years paralyzed to a great extent the best exertions of the true friend of the husbandman. The "old fashioned farmer" as he delights to style himself, clings most tenaciously to his belief in "small potato" seed, and indeed in small potato stock, "*as no less perfect in respect to vitality and the specific character of its several species*," and consequently, equally as good for the immediate purpose of reproduction. A fatal mistake, let who may entertain it. A dangerous heresy that must be rooted from men's minds ere we can look for any marked improvement in agricultural pursuits. Let this be a great purpose with your journal. Teach only the "one right" doctrine—that the never varying essentials to good crops and success in husbandry, are good soil, natural or artificial—good seeds, good tools and good culture. Let the precept be worked out in the practice, and the time will come when in our less favored clime, and upon our sterile soil, shall grow up a system of agriculture such as the world has never seen. L. P.

East Woburn, Aug. 3, 1855.

Grasshoppers.—The editor of the *California Farmer*, in his journal of July 13, states that grasshoppers are exceedingly numerous and destructive. He had seen one that measured from three and a half to four inches in length!



THE PEACH APRICOT.

The delineation above is from a specimen gathered in our garden about the tenth of August. The largest sample of the fruit is about four inches in circumference, roundish, rather flattened, and somewhat compressed on its sides, with a well-marked suture. Skin yellow in the shade, but deep orange, mottled with dark brown, on the sunny side. Flesh of a fine yellow saffron color, juicy, rich and high-flavored. Downing says:

"The apricot is one of the most beautiful of stone fruit trees, easily known by its glossy *heart-shaped* foliage, large white blossoms, and smooth-skinned, golden or ruddy fruit. In the fruit garden it is a highly attractive object in early spring, as its charming flowers are the first to expand. It forms a fine spreading tree of about twenty feet in height, and is hardy enough to bear as an open standard south of the 42° of latitude of this country.

USES.—A very handsome and delicious dessert fruit, only inferior to the peach, ripening about midsummer, after cherries, and before plums, at a season when it is peculiarly acceptable. For preserving in sugar or brandy, for jellies, or pastries, it is highly esteemed, and, where it is abundant, an admirable liqueur is made from the fruit; and it is also dried for winter use.

CULTIVATION.—This tree is almost always budded on the plum stock (on which in July it takes readily,) as it is found more hardy and durable than upon its own root. Many American nurserymen bud the apricot on the peach, but the trees, so produced, are of a very inferior quality—short lived, more liable to diseases, and the fruit of a second-rate flavor. Budded on the plum, they are well adapted to strong soils, in which they always hold their fruit better than in light sandy soils.

Apricots generally grow very thriftily, and soon make fine heads, and produce an abundance of blossoms and young fruit; but the crop of the latter frequently falls off when half-grown, from being stung by the plum-weevil or curculio, to which the smooth skin of this fruit seems highly attractive. Seedling apricots are usually more hardy and productive here, than the finer grafted sorts.

This is a favorite tree for training on walls or espaliers, and, in town gardens especially, we often see it trained against the sides of brick houses, and yielding most abundantly. As the apricot, however, expands its blossoms very early, it should not be placed on an east wall, or in a situation where it is too much exposed to the full morning sun."

For the New England Farmer.

THE CORN CROP.

Mr. Editor:—In my summer rambles about the country, no one object has afforded me more gratification than the appearance of the corn crop. Not only does that crop exhibit a high state of promise, but it seems to me that a much larger aggregate breadth of soil than usual has been applied to it the present season. This, in the face of the partial failure of last year from the drought, indicates that the value of the corn crop is compelling a proper appreciation from our farmers, despite of the seeming heavy labor of its cultivation. I rejoice at this; for I honestly believe that, with the decline of the corn crop, we may date the decline of the great interest of agriculture in this country.

When I see a farmer figuring up the expense of cultivating corn, and declaring that every bushel he raises costs him more than it comes to—that he can buy it cheaper than he can produce it—I set him down as a man in great danger of cultivating a too intimate acquaintance with the sheriff. It is true that the proper adaptation and manuring of the soil for corn, the hoeing, the harvesting, the husking and the shelling of the crop, ordinarily involve a good deal of labor; but then it should be borne in mind that no other crop so well subdues the land, or leaves it in so good a condition for other crops—that none affords such indispensable food for both man and beast, or can be adapted to so many purposes. When hay is twenty dollars a ton, the stover from the corn-field is no small item in the feed of cattle, to say nothing of the one or two tons of pumpkins per acre, which may be raised along with the corn without sensibly diminishing the latter crop. All observing farmers agree also, that not only Indian meal, but the stover of corn, constitute the very best food for cattle, and especially for cows in milk. The milk, the butter, and the cheese, made from "corn feed," are always superior to those made from any other; and it is not necessary for me to say one word as to the superiority of "corn-fed pork," for everybody knows of it.

Again, corn is the *safest* crop that can be cultivated. Potatoes may rot—wheat may be destroyed by the fly, the midge, the rust, the drought, or by too much wet—rye may "winter-kill," and oats may blast—but corn does not fail, on an average, once in twenty years. There may be partial failures from drought or frost, but anything like a total failure has occurred but once in New England within the present century, and that was during the cold season of 1816. Last year there was very nearly a failure of this crop in some of the western States; but if the newspaper accounts may be relied on, the aggregate crop of the present season, all over the country, bids fair to atone for the deficiency of the last. This is the brightest indication of the times; for the prosperity of the country has become so far identified with corn, that even the failure of cotton could scarcely affect it more. The aggregate corn crop of the present season, from present appearances, will be much greater than ever before; it may reach the enormous amount of from six to eight hundred millions of bushels—and yet, I venture to assert that not one of those who have contributed to swell this great aggregate is the poorer for having cultivated corn. It is all nonsense to say that the crop, in any case, "costs more than it comes to."

As to the best mode of harvesting corn, I will say a few words. Where the saving of the stover is an object—and I do not know the place in New England where it is *not* an object—nearly all good practical farmers agree that the best way is to cut it up as soon as the ears are out of the milk, and while the leaves and husks are green, tie it in bundles, and place those bundles in "stooks" to cure. As soon as they become dry, the corn may be husked, and the stover stowed away in the barn; and, thus cured, the cattle will eat it at any time in winter in preference to the best English hay. One good farmer tells me that the stover of his corn-field is better than a ton of hay per acre, and that it very nearly pays for the labor of cultivating the crop, from the fact that such labor interferes very little with the time necessary for haying, and for harvesting other crops. Besides, he says, *any* other crop, be it grass, grain, or potatoes, will rotate with a corn crop better than with any other.

As for the varieties of corn best adapted to particular localities—not to particular soils, for corn will grow with manure on any soil—there need be little said, for this grain has a wonderful faculty of adapting itself to almost any climate. The large southern corn, if planted at the North will gradually become smaller, until it attains a growth adapted to the climate; and northern corn, planted at the South, undergoes a corresponding change there. It is true, however, that the varieties may be somewhat ameliorated. In a recent number of the *Farmer*, in answer to a correspondent, you stated the "Early Jefferson" to be the earliest corn. Now I have cultivated for years the common kind of yellow "eight-row" corn, made earlier than usual by a fortnight, by a farmer in Vermont, who for eight years in succession plucked the very first ripening ears in his field and preserved them for seed. I always have green corn of this variety from the middle to the twentieth of July; and year before last I gathered a quantity of perfectly ripe ears on the 5th of August. It is not "sweet corn" in the usual acceptation of the term; but it is much sweeter and more palatable for cooking green than the "Early Jefferson;" which latter, in fact, is hardly worth the cooking. This early variety of mine would be invaluable for cultivating in more northern latitudes, for three months of good weather are all that is wanted to grow and ripen it.

I am inclined to think that there is no very great difference in the varieties of corn, in regard to the yield per acre. The large "tree-corn" of the South and South-west, where a man is obliged to stand on tiptoe to reach the ears, seldom, I am told, yields more than fifty bushels to the acre. In the great corn-growing Scioto Valley, fifty bushels to the acre is considered a large average crop. And yet I once knew *one hundred and thirty-one bushels to the acre*, of common eight-rowed yellow corn to draw the first corn premium at the fair of the agricultural society in Rutland County, Vermont. This, to be sure, is something extra; but fifty bushels to the acre is by no means a crop to brag of, even in what is usually called the sterile soil of old Middlesex. I have raised nearly as large a measure of ears on a square rod, of the common white pop-corn, as of any other; because, though the ears are much smaller, the hills will bear planting much nearer together, and the average number, per stalk, of this variety, is much greater than will hold good of the larger varieties. And by the way, I would recommend a much more extensive cultivation of this variety. The oleaginous matter which it contains, and which causes it to "pop" so freely, renders it very valuable for the fattening of fowls, while "popped corn" is the simplest, lightest, cheapest, and most nutritious form of unleavened bread known to the world. No family, in these days, ought to be without a "corn-popper."

I could write for hours upon the advantages to our farmers of entering more largely into the cultivation of maize, and then scarcely satisfy my own feelings on the subject. I do not expect others, however, to partake of my enthusiasm, and so I forbear; and will close by an affirmation, of which I challenge the disproval. It is this: *No farmer ever yet cultivated too much Indian corn.*

Somerville. E. C. P.

For the New England Farmer.

HAY CROP.

Notwithstanding the long-continued growth, and the luxuriant appearance of the fields, there is much reason to believe that the amount of hay actually secured in condition to be used, will come short of a fair average of the crop for the last ten years. This is true, so far as my observation has extended in the eastern part of the State. The check put on grass, by the extreme drought of the last year, in many fields, will not be overcome until the land is re-seeded. When the plants are once killed, no fertilizing application will cause them to sprout again. If we do not mistake, an injury of twenty-five per cent. to most of our fields happened in this way.—Then, it will be remembered that the early spring was peculiarly unpropitious to the starting ahead of this crop. Very few fields were grown sufficiently to be cut on the 4th of July. Generally they were ten days, at least, behind at that time. And subsequently, when cut, it took four days or more to make it, as is usually done in two, in fair weather. Taking into view all these circumstances, and the empty condition of the mows in our barns at the present time, it is fair to say, that the crop is considerably less than average.

We have been led to these reflections on the crop of hay, from the interest we had felt in facilitating the labor of cutting it. We had persuaded ourselves that one-half of this labor, at least, might be saved, by the proper introduction of machines, to be operated by horse or ox power. Whether the result will come up to our expectations can only be determined, when a full detail of the experiments made shall be presented.

This is certain, where one and a half and two tons of hay to the acre was calculated on in the spring, but little more than one ton has as yet been realized. Whether this deficiency shall be supplied by the *second crop* and the superabundance of *corn fodder*, will depend much on the vigilance and industry of farmers. ESSEX.

August 10, 1855.

For the New England Farmer.

LITTLE THINGS:

OR, A WALK IN MY GARDEN.....NO. 3.

I do not write about my garden because it is so large, so expensive, or so much better than those of my neighbors, but because every garden possesses its individual interest. Every garden is full of instruction, even that of the sluggard. While taking my walk this morning, I was struck with the

POWER OF LEAVES TO ABSORB HEAT.

I transplanted some cabbages, gave them a single watering, and covered them with leaves of rhubarb, or burdock, which I find much better than repeated watering. The thermometer had been up to 95°, yet the plants did not wilt. What oceans of heat are swallowed up by vegetation in summer! The leaves do not merely evaporate the water by the aid of heat, but they have an apparatus by which water is emitted from their surfaces, which, when disengaged, absorbs a large quantity of sensible heat. A single large maple in open ground will almost always induce a current of air beneath its shade.

Somebody has said, and it has gone the rounds of the papers, that nitrogenous manures are not good for cabbages or ruta bagas. Now I do not believe it. They love such manures, but the trouble is, such manures should be thoroughly incorporated with the soil, and if possible, prepared early in the season. I have for many years preferred this kind of manure to all others, and have almost always beat my neighbor, the doctor, who is a good gardener.

I have a spot sown with seeds from the Patent Office called the

CHAMPION PEA OF ENGLAND.

They look finely, are ready for picking after the Prince Albert, and before the Marrowfat. They have been cultivated for several years by some English families in this vicinity, by whom they are highly prized. I think they are not generally known in this State, but will prove a valuable addition to our culinary articles. *Item.* — Sow the Prince Albert, Champion and Marrowfat, for a succession of productive crops.

Some very silly things have been written respecting the use of

SALT AS A MANURE.

The chief use of salt is alleged to be its power of destroying grubs and worms. Now I would like to know how many bushels, evenly spread over an acre, would be necessary, so as to destroy a single worm? Then, again, it destroys weeds. But so will sulphuric acid, potash, or any other salt, or acid, when used in large quantities, and in a concentrated form. How many bushels of salt to the acre would it take so as to kill any weed whatever?

I will answer. It will take just as much as will kill everything you plant or sow, except such plants as are of marine origin. There is, however, one little experiment which I once made with complete success. I had a spot thickly set with Canada thistles where I wished to make a garden. I manured the ground heavily, sowed with oats, and let thistles and oats grow together. When they were in full bloom, I mowed them pretty high, and with a tin coffee-pot of beef brine I filled up the hollow stocks of the thistles with the same. To some this might seem small business, but I passed over the ground faster than I could hoe it when under cultivation. The result was, that I never saw any thistles grow there afterwards. I close this article by declaring that I design to make my garden supply my table with something fresh the year round.

Bethel, Me., Aug. 4, 1855. N. T. T.

PROPER TIME FOR GATHERING PEARS.

A late number of the *London Gardener's Chronicle* contains an article upon this subject by M. DE JONGHE, of Brussels, a portion of which may prove of service to some of our readers. He says:

Formerly, when the varieties of pears in cultivation were comparatively few, there was little difficulty in knowing the time when each sort ought to be gathered; but now, when the number of good varieties is so much increased, the proper time for gathering the respective sorts cannot be known without a certain experience acquired during a period of from three to five years, in order that a mean may be obtained. For the maturity of the fruit on the tree depends:—

1. On the individual constitution of the tree, and its liability to change.
2. On the soil in which the tree is planted.
3. On the influence of the stock.
4. On the temperature of the season, whether more or less favorable for accelerating the maturity of the fruit.

In order to know exactly the mean period of maturity on the tree of any particular variety of fruit, it is necessary to observe several trees of such variety, planted in different soils and situations. With regard to the varieties of Pears which ripen at the end of summer, or early in autumn, it is not difficult to fix the date when they should be gathered; for, in the same situation, this, in different years, does not vary more than 10 days.

The influence of soil, of stocks and of temperature more or less warm and dry, is not so great on early fruits as on the late autumn, winter and spring varieties. With regard to the summer and early autumn kinds, they cannot always be left to ripen completely on the tree, grown as a pyramid or standard, and it is needless to add that these sorts of fruits do not, in our climate, merit a wall, where, in fact, they are never so good as in the open ground. When a considerable number of fruits is observed to have reached the point of maturity, and when, with a slight pressure of the thumb, the stalk is readily detached, without twisting, at its junction with the spur, a portion of the fruit should then be gathered, and allowed to acquire their full maturity in the fruit-room. This first gathering will ease the tree, and the whole of the nutritive sap will be directed towards the remaining fruits, which, in consequence, become much finer; and these are gathered in the same manner, and successionally.

The operation of successional gathering may be very advantageously followed up, because all the fruits on a tree never ripen simultaneously; and that they may acquire full perfection, it is important that they should be left on the tree to attain the necessary degree of maturity, known to the practised eye by certain signs, which it would be difficult to point out, without entering into tedious details.

With regard to the late autumn, winter and spring pears, the same proceeding is adopted; it is only by successional gatherings that we can hit upon the proper time, and know the happy medium between gathering too early or too late. The gathering of these fruits, in season as above mentioned, commences about the middle of September, and continues till the end of October, or till just before the fall of the leaves.

When some fruits, neither bruised nor pierced by insects, of a late variety of pear begin to drop, although not affected by strong winds nor by drought; and when the leaves begin to turn yellow and fall from the tree, an attentive and experienced person will perceive that the period of gathering is at hand.

The same kind of fruit cannot be gathered uniformly at the same date, owing to various circumstances which influence the ripening; but by successional gatherings, or at intervals, the proper time for different localities is best ascertained; and that, in general, all the varieties ought to be gathered before their perfect maturity, which should be attained in the fruit-room.

For the New England Farmer.

"WHAT CONSTITUTES A COW OF NATIVE BREED?"

MR. EDITOR:—The reperusal of the criticisms of "W. S. L.," as they appear on the pages of the *Farmer* for June, brings to mind the propriety of replying to his inquiry, "*What* constitutes a cow of native breed?" Mr. L. says he understands by *native breed*, one indigenous to the county." That is, born in, or having its origin in the county. If being *born in* makes the animal native, then all the offspring of stock imported, that chance to be dropped in the county, will be entitled to the appellation of native. But if the first origin of the race must be shown to have been within the county, then it is as well to admit, in the onset, that no such thing can be shown; because every one knows that all our animals proceeded from stock imported, at periods more or less remote. So that the remark recently made in your paper is true, that the discussion about *native breeds* resolves itself into a talk about *words*, and *words only*. For this reason, I hope to be excused attempting any further answer.

I am happy in having drawn from my friend so valuable a mass of facts, relating to the stock of the county of Worcester. But he will pardon me when I say, that this statement of *selected and petted animals* goes but a little way towards showing the real character of the entire stock of the county. Possibly my estimate that *nine-tenths* of them were *native*, in the sense of the term, as ordinarily used, may have been extravagant; but from the best estimate in my power to form, by the use of *my eyes* and *my* *ears*, wherever I have been, (and I have been in most of the counties of the adjoining States of Maine and New Hampshire,) I have seen no sufficient reason to vary this opinion. ESSEX.

June, 1855.

For the New England Farmer.

FARM WAGES AND LABOR.

MR. EDITOR:—A writer in the last number of the monthly *Farmer* finds himself much troubled on account of the high wages which farm laborers are receiving. I shall attempt to show that good workmen receive no more than a fair equivalent for their labor; if farmers wish to employ idle, ignorant, bigoted laborers, they may do so, and it will continue to be difficult to obtain others. The foreigner when he first arrives, may be hired for small wages, yet he is dear "help;" but after he has learned the ways of the country, he demands and obtains as high wages as the Yankee. Much of the farm labor is performed by machinery, and less hand labor is needed now than formerly, and more intelligent labor is required. The farm workman labors more hours than almost any other, and he is much exposed to the weather. It appears to me that the condition of the farm laborer, working 14 or 16 hours per diem, for $14 or $15 per month, does not compare very well with that of the mechanic, working ten or eleven hours, for $1,50 or $2 per diem. Working "by the month" wears out the strength and constitution, so that no man with average health can expect to hold out longer than to the age of thirty-five or forty years.

Then farm labor is not constant employment, for after the farmer has gathered in the products of the soil, he does not require any extra help until it is time to prepare the ground for another crop; consequently, there is, during the winter, but little employment to be had.

There is so much exposure in farming that young men who commence at the age of twenty-one, without any property, and with the intention of getting a living by working on a farm, and who have an average fortune, usually end a short life as poor as they began it. According to the doctrine laid down by "E. G. L.," wages ought to be low when produce is high; that is, the farmer cannot pay so high wages when corn is $1,25 per bushel, as he can when it is only 75 cts. How is this?

Nothing has been said about that numerous class called day laborers, men having large families to support, and who are compelled to get their living by working out by the day on farms. Employment is far from being constant with them, and their condition is, if possible, worse than that of the mechanic or the laborer for manufacturing companies, for they have great reason to hope that by attending to their business they may get promoted; but the farm laborer can have no such hope; at the age of twenty-one he is in his prime, and commands as high wages then as ever, and considering the short period in which farm labor is really in demand, I think that laborers in that business ought to command the best of pay. E. N.

South Hadley, Aug., 1855.

REMARKS.—We cannot agree with all that "E. N." says in this article, but are quite willing that he shall have a fair hearing.

AGRICULTURAL EXHIBITIONS—1855.

STATE SHOWS.

Alabama	Montgomery, Oct. 23, 24, 25, 26.
California	Sacramento, Sept. —.
Canada East	Sherbrook, Sept. 11, 12, 13, 14.
Canada West	Coburg, Oct. 9, 10, 11, 12.
Connecticut	Hartford, Oct. 9, 10, 11, 12.
East Tennessee	London, Oct. 23, 24, 25.
Georgia	Atalanta, Sept. 10, 11, 12, 13, 14, 15.
Illinois	Chicago, Oct. 9, 10, 11, 12.
Indiana	Indianapolis, Oct. 17, 18, 19.
Iowa	Fairfield, Oct. 10.
Kentucky	Paris, Sept. 25, 26, 27, 28.
Maryland	Last week in October.
Michigan	Detroit, Oct. 2, 3, 4, 5.
Missouri	Boonville, Oct. 2, 3, 4, 5.
New Hampshire	Manchester, Sept. 12, 13, 14.
New Jersey	Camden, Sept. 19, 20, 21.
New York	Elmira, Oct. 2, 3, 4, 5.
North Carolina	Oct. 16, 17, 18, 19.
Ohio	Columbus, Sept. 18, 19, 20, 21.
Pennsylvania	Harrisburg, commencing Sept. 25.
Rhode Island	Providence, Sept. 11, 12, 13, 14, 15.
Tennessee	Nashville, first week in October.
Vermont	Rutland, Sept. 11, 12, 13.
Virginia	Richmond.
Western Virginia	Wheeling Island, Sept. 26, 27, 28.

COUNTY SHOWS IN MASSACHUSETTS.

Barnstable	Barnstable, Oct. 10.
Berkshire	Pittsfield, Oct. 3, 4.
Bristol	New Bedford, Sept. 27, 27.
Essex	Lawrence, Sept. 26, 27.
Franklin	Greenfield, Oct. 3, 4.
Hampden	Springfield, Oct. 3, 4.
Hampshire	Amherst, Oct. 10, 11.
Hampshire, Franklin and Hampden	Northampton, Oct. 10, 11.
Housatonic	Great Barrington, Sept. 26, 27.
Middlesex	Concord, Sept. 26.
Middlesex South	Framingham, Sept. 19, 20.
Norfolk	Dedham, Sept. 26, 27.
Plymouth	Bridgewater, Oct. 3, 4.
Worcester	Worcester, Sept. 26, 27.
Worcester North	Fitchburg, Sept. 19.
Worcester West	Barre, Sept. 20.

TOWN FAIRS.

Lexington	Tuesday, Sept. 25.
Leominster	Wednesday, Sept. 26.

MISCELLANEOUS.

Cheshire County, N. H.	Keene, Sept. 19, 20.
Grafton County, N. H.	Wentworth, Sept. 21, 22.
Hillsboro' County, N. H.	Nashua, Oct. 2, 3.
Mass. Society for Promoting Agriculture	Worcester, Sept. 27.
Rockingham County, N. H.	Keene, Sept. 27.
Sullivan County, N. H.	Sept. 26.
United States Agricultural Society	Boston, Oct. 23, 24, 25, 26.

HOW MUCH MANURE DO WE USE ON AN ACRE?—An acre of land contains 43,560 square feet, 4,840 square yards, or 160 square rods. By those who have used guano, it is said 300 pounds is sufficient to manure an acre; 302½ lbs. would just give one ounce avordupois to the square yard. A cubic yard of highly concentrated manure, like night soil, would, if evenly and properly spread, manure an acre very well. A cubic yard of long manure will weigh about 1,400 lbs; a cubic foot not far from 50 lbs. A cord contains 128 cubic feet; a cord and a quarter would give about a cubic foot to the square rod. If liquid manure be used it would take 170 bbls. to give one gill to a square foot upon an acre, which would be equal to about 50 pipes or large hogsheads. It would be quite useful if farmers would be a little more specific as to the amount of manure applied.

HOW TO MAKE A HORSE CARRY HIS TAIL STRAIGHT.—I had a very fine colt, that carried his tail on one side and was continually throwing it over the driving line, when to cure him of this habit, I braided a loop in his tail and tied it with a string to the trace on the same side on which he carried it, and when he found it was tied, he would pull on it, when I would let him up a little gradually on the sitting until at length he came to carry his tail perfectly straight.—*Boston Cultivator.*

EXTRACTS AND REPLIES.

DRAINING—TRANSPLANTING—WALL-BUILDING—OLD PASTURES—WHEAT CROP.

MR. EDITOR:—For a few years in my "teens" I "worked out" on a farm, after which I followed shoemaking for a living; this proving a detriment to my health, I studied, and have practiced, in the winter, for several years, as a profession, the science of Phrenology. I have had a desire for agriculture for several years, and two years since bought a farm of over 100 acres, and in summer, after a six months tour—from October, each year, lecturing on the above science—I do the most of the work on my cleared land (60 acres) with my own hands, and love it well. I am healthy and happy. I should like to ask about a thousand questions through the *Farmer*, and perhaps shall, in the course of a year.

1st. I have a "swale," or swampy piece, of 7 or 8 acres, that bears upon an average about two tons per acre of hay, when cleared—and some of it has been mowed for forty years—but it is quite wet. Would it be best to underdrain it, or cut a deep, open ditch, or just cut a shallow channel to give course to the surplus water? (*a*.) Some such ground in last summer's drought dried up so that the grass was killed for quite a distance from such a deep ditch. Query: Does not such kind of ground require *much* water to make it productive?

2d. Is the fall a proper time to set out native seedling apple trees, of five years growth from the seed? (*b*.) Will such trees, set out in the fall, and others of the same kind, set out in the following spring, bear alternate years, as some assert? I doubt the correctness of the theory.

3d. Is it the better plan to level the ground where stone wall is to be laid, or should the ground remain unbroken? Some say that if the surface is disturbed, it will heave more than if left unbroken. (*c*.)

4th. Is the best way to improve the feed in old hilly pastures, to harrow them in the fall thoroughly, and sow timothy and clover on them at the time? (*d*.)

Lastly, should ground broken up in the fall be plowed again in the spring, for a wheat crop? (*e*.)

Answers to the above, through the *Farmer*, would much oblige your subscriber,

Glover, Vt., 1855. BENJAMIN BRUNNING.

REMARKS.—(*a*.) Good meadow lands may be injured by draining *too much*. The quality of the land itself must determine how low the water must be reduced below the surface. On compact, heavy meadows, the water may be drawn lower than on those that are light and porous. Some meadows of the latter class are so exceedingly light that when the water is drained from them for the depth of 18 or 20 inches, they will burn, on taking fire, like stacks of peat, and be rendered nearly worthless.

Examine with care those parts of the meadow, along the edge of the upland, where good grasses grow luxuriantly, and see by digging what the state of moisture is there at various seasons of the year, as this may afford suggestions which will be of service to your operations.

(*b*.) Yes. Set them soon after the leaves have fallen, and throw the earth about their stems 8 to 12 inches high. We do not believe in the alternate year theory.

(*c*.) If you mean to have a stone wall remain where you place it, and stand the test of frost and time, dig a trench three feet wide and two deep, and fill it with small stones, if you have them in abundance. If not, the depth may be less. A wall well-built on such a foundation, will stand a hundred years.

(*d*.) Pastures may be greatly improved in the manner you suggest; but whether that is the *best* way, or not, we are not able to say. Pastures often fail for want of seed, even when the soil is in pretty good condition.

(*e*.) If the land intended for wheat is sward, it would not be best to disturb it in the spring, because it would be very expensive to break and pulverize the sods which were turned under the previous autumn. Plow with a light, one-horse plow, or work with a cultivator as deep as you can, without reversing the sods.

RYE—WEEDS.

FRIEND BROWN:—I wish to inquire through the *New England Farmer* what is the best time for sowing rye, and what manures are best adapted for it? I have lime, plaster and compost. Will rye do well, two or three crops in succession, on the same ground?

What will, if anything, kill a weed known here by the name of Jacob's Ladder? I have tried every thing I can think of, but to no effect. Any light on the subject will oblige many young farmers, and I presume old ones, too. W. R. S.

Petersburg, Aug. 6, 1855.

REMARKS.—To ensure a good crop of rye, it should be got in as early as the middle of August; it will then have time to make strong roots, and will resist the effects of winter much better than when the roots are young, tender and feeble. The kind of manure best adapted to the crop, depends in a great measure upon the kind of soil upon which the crop is placed. On the light, sandy soils upon which rye is usually grown, a good compost of meadow muck and barn manure would probably be better than lime, plaster, or any of the common stimulants, such as guano and superphosphate. If the meadow muck had been mixed with lime, thrown into a heap, and remained a year, it would be still better for it.

Nothing short of never-tiring perseverance will destroy some of the weeds which infest the farm. Several years since a patch of chiccory made its appearance in one of our mowing fields, and was promptly dug up with a spade, but soon appeared again. That process was repeated six or eight times, but still it grew. It was then cut off just below the surface, and a handful of salt applied to the bleeding wound, but this did not kill them. This summer they were allowed to grow until the seed bolls began to form and then they were *pulled* up, some of them requiring the strength of two men to accomplish it. To-day they have broad, luxuriant leaves, and are growing as vigorously as ever. Now, friend "S.," if you will tell us how to destroy chiccory plants, we will offset such service by informing you how to kill "Jacob's Ladder."

HOW TO USE MUCK.

Will you give me the best way of using muck on my land? My farm is situated on a rising piece of land, and is mostly sandy loam. I have just commenced farming for myself, and hope to be, sometime, a practical and thorough tiller of the soil.—Crops for the most part are backward in this section of the country, but are growing fast, and look promising; the hay crop seems more abundant than last year. JAMES F. BUTLER.

Monmouth, Aug., 1855.

REMARKS.—After the muck has been dug one year, mix it with ashes or lime, and use it in that way on your sandy loams. The best use of muck, however, is as an absorbent. Always keep a good stock near your manure heap, and as the droppings of the leanto are thrown down, cover them with the muck once each day; no labor that you perform will pay you better than this. You not only get the addition of the muck, but it absorbs the volatile gases of the manure, and lays them up for future use.

WINTER WHEAT.

GENT.:—In your paper of Aug. 11, I find an article on "winter wheat," which contains information new to me; and, inasmuch as I have a good quantity of such land as is mentioned in said article, I feel disposed to make a trial of the winter wheat, provided I can find the seed. Can you tell me where, and for what price, it can be had? If so, by giving the information in your next paper, or as early thereafter as your convenience will admit, you will confer a great favor on a SUBSCRIBER.

Winchendon, Aug. 14, 1855.

REMARKS.—Winter wheat may be found at the agricultural warehouses, and the price will be, probably, somewhere between $3 and $4 per bushel.

For the New England Farmer.

POTATO CROP.

MR. EDITOR:—An observing cultivator informs me, that since the late abundant rains, he has noticed unmistakable indications of disease and decay on the vines of his potatoes. Appearances, like those in years past, when the potato was destroyed by the *rot*. If this be true, and I know no reason to doubt, it is a fact worthy of notice, in several points of view—both as it will affect the supply of this most useful article of food, and as it may be indicative of the cause of the malady that has heretofore been so alarming.

Never has the prospect of potatoes been more encouraging than for a month past. The general remark has been—"never did potatoes look better," and "there is no indication of rot." And further, never have we known potatoes appear to better advantage when brought upon the table than the present season. I am no alarmist, nor have I any disposition to increase the price of this almost necessary article of food. In proof of this, I will say, that within a week, I have known a contract to supply one hundred bushels of potatoes of prime quality, as taken from the field, at *forty cents* per bushel.

Aug. 14, 1855. SOUTH DANVERS.

UNITED STATES AGRICULTURAL SOCIETY.

We call attention to the following Circular, which will make known the objects of the Society, and hope all who are interested in the noble art of Agriculture—and who is not—will make this Exhibition a personal matter, and give it all the influence in his power to render it, in all its departments, superior to any enterprise of this kind which has ever taken place in this country. There are none, whatever business or profession they may be engaged in, but may be benefited, directly or indirectly, in the success of such an Exhibition. Not only the best Stock may be presented, but we see no objection to exhibiting farm implements, specimens of fruits, grains, bees and bee-hives, preserved fruits, and everything else having immediate reference to the farm. We do not know that it is contemplated that anything beside Stock shall be introduced, but suggest, and earnestly desire, that other articles may be allowed a place for Exhibition, even if no premium is offered on them.

We trust that New England will do her whole duty in this noble enterprise. That the hills of Vermont and Berkshire, the valleys of the Connecticut, the Merrimack and the Penobscot, and the plains of the Cape, will all send their products to this grand gathering of the people, with the noble specimens of their industry and skill.

A GRAND NATIONAL EXHIBITION OF STOCK—Horses, Cattle, Sheep and Swine—open to competition to all the States of the Union, and to the British Provinces, will be held by the United States Agricultural Society in the City of BOSTON, Oct. 23d, 24th, 25th and 26th. Twenty Thousand Dollars have been guaranteed by patriotic gentlemen of Boston and its vicinity to defray the expenses; the City of Boston has generously granted to the Society for present use, a fine public square of fifty acres; and $10,000 will be offered in premiums in the various departments.

The previous Exhibitions of this Society—at Springfield, Mass., in 1853, and at Springfield, Ohio, in 1854—were eminently successful, and no efforts will be spared to render the present SHOW, combining as it does the four great departments of FARMING STOCK, superior to its predecessors. The Premium List, with the Rules of the Exhibition, will be forwarded to all who will address the President or Secretary, at Boston, to that effect. It is earnestly hoped that all breeders, and owners of Fine Stock, will feel it to be a duty, as it certainly is for their interest, to contribute to the Show.

The List of Entries, Exhibitors and Award of Premiums, and all the proceedings of the Exhibition, will be published in the JOURNAL of the So-

CIETY for 1855. Annual members of the Society, who desire to receive the Journal, should remember to renew their subscriptions.

MARSHALL P. WILDER, *President.*
WM. S. KING, *Secretary.*
Boston, Aug., 1855.

Fay's Portable Hand-Power Hay, Cotton and Cider Press.

This machine, the simplicity of which cannot be surpassed, has long been desired by the agriculturist. It is admirably adapted for pressing hay, cotton, hemp, wool, rags, pumice, linseed oil, &c., &c. Notwithstanding its small proportions and extraordinary lightness, it is strong and effectual, sufficiently so to press to any compactness required. It is so simple in its construction and use, that any person of ordinary capacity will readily understand the mode of using it; with common care, one machine will last a life-time; for convenience and strength, the frame-work is all secured together with joint bolts, only twelve of which are required to be removed, in taking apart for shipment, viz: four post bolts which secure the top work to the bottom, and four bolts upon each side, which secure the end work to the side joints; the doors being previously unshipped, you have the two end pieces, two side pieces, and bottom work, which are easily carried by hand.—Two persons will put the whole together in a few minutes.

The press being worked by hand power, can be used advantageously in stormy weather, within closed doors, whereas in operating with horse power, doors require to be more or less open.

For sale by the patentee's agents, NOURSE & Co., No. 9 Commercial Street, Boston.

LADY'S DEPARTMENT.

OUT-OF-DOOR EXERCISE.

Every woman, every fashionable woman even, has a heart at least considered as the organ of circulation; and blood-vessels, on the healthy play of which depends the bloom of her face, and which will not play healthily without out-of-door exercise. She has also muscles and ligaments, which have to brace her up, hold her together, and keep her clean-limbed, but will do nothing of the sort for long, unless they are maintained in proper tension by the same means. Let her loll about all day in a close "muggy" house, instead of exerting herself for a due time in the fresh air, and she quickly begins to droop and look unwholesome. Soon her complexion fades or grows discolored, her features are puffed or shrunken, her form either wastes or swells, she gets either haggard and lanky, or round and fat; her figure tumbles all of a heap; her ankles give out, her feet spread and flatten; her elastic step becomes a waddle; and her person altogether acquires the style of a cow. Brilliant eyes, on the other hand, complexion to match, features retaining the chiselled outline, a slim and smart figure, neatly turned ankles, finely-arched insteps, are the reward of walking or riding out at a good pace, and for a reasonable distance, every practicable day. And by these means is preserved for many a year a contour, the cut of which resembles that of the doe or the gazelle. At no period of the year is any healthy young woman, of whatever station, obliged to exchange out-of-door recreation for in-door amusement, except when it hails, or rains, or snows, or thunders or lightnings, or blows a hurricane. Are there not furs? never mind the expense: the war with Russia has not made them dearer than the attendance of a simpering doctor. Are there not muffs, and boas, and all sort of water-proof armor? Young ladies, take the advice of your elders, and, as the old woman says, "Get out!"—in all tolerable weather. As to necessary in-door amusement, mind, it may also be made conducive to beauty by being rendered in some degree intellectual. Intelligence adds considerably to the lustre of the eyes, which, without it, have only the glitter of glass beads, whilst the best-shaped and most splendidly-colored face which they can be stuck in, resembles that of a waxen dummy in a hair-dresser's shop. In order, therefore, to attract admiration, ladies of fashion would do well to cultivate intelligence, to some extent, by way of in-door amusement. Beauty may be called a fading flower; but it is a flower that will fade very much the sooner for being taken in-doors for the winter like a geranium.—*Water Cure Journal.*

CONVENIENT AND WHOLESOME FOOD.—A very cheap, convenient, and palatable dish may be prepared with the common pilot bread, which is a hard, dry cracker, made of flour and water. These can be purchased by the barrel at a price but a little higher than flour, pound for pound, as they are generally made by machinery, and the cost of making and baking is but trifling when it is done on a large scale. We see the price of pilot bread is quoted in this market at less than half a cent per pound above good flour, and as they are nearly as dry as flour, they are about as nutritious. They will keep longer than flour without deteriorating or becoming stale. They can be used in a variety of ways, such as putting them into stews of meat, or meat and potatoes; they improve "hash" materially, and are a good substitute for "crust" in pot-pie, having the advantage of always being light and wholesome. For an ordinary, every-day dish, put them into an oven after the bread is removed, or into a stove oven, and let them dry thoroughly; then break them up and pour boiling water over them, and add a little salt, and butter, cream or milk. We know of no more easily prepared, more wholesome, and more palatable dish than this, for the breakfast, supper, or even for the dinner-table. *American Agriculturist.*

Afflictions are the same to the soul as the plow to the fallow ground, the pruning-knife to the vine, and the furnace to the gold.

New England Farmer.

RATES OF ADVERTISING.

For one Page, one insertion,	$10,00
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For one-half Page, six months,	28,00
For one-half Page, one year,	55,00

Advertisements of less than half a page will be charged at the rate of six cents per line, nonpareil. No discount will be made from the above rates.

Fishkill Landing Nurseries.

DUCHESS COUNTY, N. Y.

THE subscriber having now on hand an unusually large assortment of FRUIT AND ORNAMENTAL TREES, and being desirous of reducing the same, and greatly curtailing his amount of stock, would call attention to the same, consisting as it does of the most approved varieties, in part as follows:

50,000 Apple, choice variety, from 6 to 10 feet high, at from $12 to $14 per hundred.

15,000 Pear, 4 to 8 feet, at $30 per hundred,

15,000 Cherry, 6 to 10 feet, at $25 per hundred,

20,000 Plum, 3 to 5 feet, from 1 to 3 years from the inoculation, at $25 to $34 per hundred.

Apricots on Plum Stocks, from 1 to 2 years from the inoculation, $25 to $30 per hundred. Those of one year's growth from the bud are very fine.

Also Peach, Quince, Raspberry, Currant Grapevines, Hybrid Perpetual and other Roses, Shrubs, Vines, &c., &c. A fine stock of Dwarf Trees of Apple, Pear and Cherry. Also 10,000 Deciduous Ornamental Trees, consisting in part of 10 varieties of Elm, 6 Maple, 6 Chestnuts, 4 Beech, 5 Ash, 2 Birch, 5 Linden, 2 Larch, Cypress, Tulips, Osage Orange, Alder, &c., &c. A large portion of the above are of large size, and fine form, among them are some of the most desirable Weeping Trees.

20,000 Evergreen Trees of fine size and beautiful form, such as Norway, and other Spruce; 6 varieties Pines, 5 Arbor Vitæ, 2 Cedars, 6 Junipers, 2 Yews, Balsam of Fir and Tree Box.

The Ornamental Trees will be sold at reduced prices.

From persons with whom we are unacquainted the Cash or a satisfactory reference will be required.

Catalogues sent to all post-paid applications by the subscriber.

DANIEL BRINCKERHOFF.

Fishkill Landing, Sept. 1st, 1855.

Fruit and Ornamental Trees,

SHRUBS AND ROSES.

THE undersigned having been for several years engaged in selecting with care, TREES, SHRUBS and ROSES from Nursery grounds, to answer orders entrusted to him, confidently feels himself qualified to satisfactorily answer the orders of those who like to purchase the best article in this line. By giving his personal attention to the selection of trees from none but the most reliable Nurseries, to packing them in the safest manner and accompanying them past the Hudson, to prevent delay, he is able to forward his customers a superior article in the most perfect order.

I visit Rochester, Spring and Fall, and, as purchasers may readily conceive, I can often fill, more satisfactorily, orders received in season to fill from the numerous and extensive Nurseries at Rochester, than those delayed to be confined to a stock I could be expected to bring out.

Having made permanent arrangements with B. Mattison & Co., proprietors of the Genesee Falls Nurseries, Rochester, N. Y., for a constant supply of the most choice varieties of STANDARD PEAR TREES, of bearing size and symmetrical form, cultivated exclusively from native seedling Pear stock, I am now prepared to supply an article superior in quality to any heretofore offered. The superior quality of these trees over those of other Nurseries, is the result of an improved mode of cultivation. The eminent position to which Mr. Mattison has attained in the Horticultural world, by his extensive experience, skill and integrity, is deemed a sufficient recommend for trees sent from their grounds. For myself I have been permitted to refer to J. A. Nash, Editor of the Connecticut Valley Farmer, Amherst, Mass., Leander Wetherell, formerly Editor of the Amherst Express, Amherst, Mass., Dr. Wm. L. Fitch, Springfield, Mass., J. B. Merrick, Palmer, Mass., and my customers generally.

All orders thankfully received and promptly and carefully attended to, and should be addressed to the subscriber at the Thorndike P. O., Palmer, Mass. H. L. HITCHCOCK.

August, 1856. 2t.

Fruit and Ornamental Trees.

(AUTUMN OF 1855.)

OUR new Wholesale Catalogue or Trade List for the Autumn of 1855, is ready, and will be sent, gratis, to all who enclose a stamp. The stock now on the ground is of the finest description, and by far the largest that has ever been offered in this country. Nurserymen, dealers and planters can be supplied on very advantageous terms, and they will find it to their interest to consult our list and examine our stock before purchasing. Our arrangements for packing and shipping are so complete that we can forward packages to the most remote parts of the U. S. and Canada with safety. Any of the following catalogues will be sent to all who apply and enclose a stamp.

No. 1.—A Descriptive Catalogue of Fruits.

No. 2.—A Descriptive Catalogue of Ornamental Trees, Shrubs, Roses, &c., &c.

No. 3.—A Catalogue of Dahlias, Verbenas, Petunias, and select new Green House and Bedding Plants, published every spring.

No. 4.—A Wholesale Priced Catalogue for Nurserymen and Dealers.

No. 5.—A Supplementary Catalogue of Fruits—containing prices of Fruit Trees for 1854 and 1855; and lists of new varieties.

ELLWANGER & BARRY,

August, 1855. 2t Mount Hope Nurseries, N. Y.

FERTILIZERS.

DeBurg's No. 1 Superphosphate of Lime.
Best Peruvian and Mexican Guano.
Ground Bone. Ground Plaster.
Poudrette;—Lodi Manufacturing Company.
Pulverized Charcoal. Sulphate of Ammonia.

ALSO FOR SALE,

Grass Seeds of Reliable Quality.

GEO. DAVENPORT,

No. 5 Commercial, corner of Chatham St., Boston.

Ruggles, Nourse, Mason & Co.,

Manufacturers and Dealers in all kinds of

AGRICULTURAL IMPLEMENTS
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A MONTHLY

AGRICULTURAL JOURNAL,

FOR THE FARM AND GARDEN.

SIMON BROWN, Editor.

FREDERIC HOLBROOK, OF VERMONT, HENRY F. FRENCH, OF NEW HAMPSHIRE,

ASSOCIATE EDITORS.

Without encouragement of AGRICULTURE, and thereby increasing the number of its people,
any country, however blessed by nature, must continue poor.—SWIFT.

Vol. VII. OCTOBER, 1855. No. 10.

BOSTON:
JOEL NOURSE, PUBLISHER,
QUINCY HALL.

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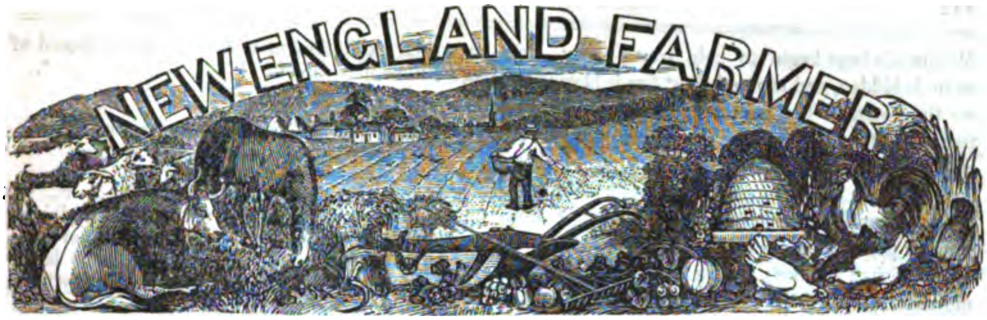

DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

VOL. VII. BOSTON, OCTOBER, 1855. NO. 10.

JOEL NOURSE, Proprietor, Office....Quincy Hall. SIMON BROWN, EDITOR. FRED'K HOLBROOK, HENRY F. FRENCH, Associate Editors.

CALENDAR FOR OCTOBER.

OCTOBER is upon us, with its transparent atmosphere, and clear, cool evenings. The *Summer* is over and gone. Through the first *Autumn* month we have approached, as it were, the bridge which divides *Summer* from *Winter;* we are about to pass it. Let us pay cheerfully the toll of grateful hearts.

The forests have put off their beautiful robes of green, so pleasant to the eye, and so cheering to the heart, and now stand clothed in their gorgeous Autumnal hues—pranked out in their richest apparel, only to be laid in the dreary grave of Winter. They shall rise in renewed verdure, and thus Nature gives her sanction of immortality to Revelation. He who has said, "seed time and harvest shall not fail," has blessed the husbandman with abundance, and this is the time for his thanksgivings to ascend to that Giver of All Good for his benevolence and his mercies.

No month in the whole year presents a time more suitable for reflection than OCTOBER. The heat, the labor and the hurry of Summer have passed away—the harvest has been mostly gathered in, the days are cool, clear and comfortable, the evenings are getting long, and the cheerful fire blazes on the hearth, soon after the sun disappears. During the day-time the odds and ends of the farm work are leisurely gathered up by the snug and thrifty farmer, and all the necessary preparations are made to enter joyously upon the ice-bound season so soon to follow. The late fruit is carefully gathered and packed away for preservation or sale, or is converted into some pleasant beverage for winter use—the latter harvests are stowed away in the barns and granaries—the flail and the threshing machine are busy with their clatter. [We sometimes almost regret that the threshing machines were ever invented, for to our ears, there is nothing more cheering than to hear from all around a farming neighborhood the measured clack of the flail, as it comes longer, or more faint, according to the distance, or to the thickness of "the threshing" upon the floor. Every farmer who was a boy ere threshing machines came into use, will doubtless recall the hours and hours that he has listened, in a still, sunshiny day, to the clack, clack—clack, clack—clack, clack, of the flails coming from the threshing floors for miles around him. Many and many a time have we done so.] The cattle floor is carefully prepared for its winter tenants.

Are there any loose clapboards or battens upon the barn, they are made fast, and every air-hole through which the sharp blasts of winter can penetrate to make the cattle uncomfortable, are carefully closed up, for "the merciful man is merciful to his beast," and the good farmer would no sooner see one of his oxen suffer from cold through his own negligence, than one of his children. As the sailor, when he sees the storm approaching, takes care "to make all snug"—so the good farmer, as winter approaches, takes care to make all comfortable.

And the evenings of OCTOBER! Go with me to farmer Wellman's, and let us see how those evenings are passed. The sun has just gone down in a clear and cloudless West, and the chill of evening is approaching. Do you hear Goodwife Wellman—"John, it's time to build a fire in the sitting-room; the evening is a-going to be chilly, and your father and the men folks will be in directly." John—a boy of perhaps eight or ten summers—for farmer

Wellman's boys begin to help round early—does as he is bidden, and soon a bright fire is blazing upon the hearth. The farmer and his family, having partaken of a bountiful repast, gather around the cheerful blaze. Farmer Wellman takes his comfortable chair in the corner, and the wife and daughters are seated around the table, sewing, or knitting, or performing such still household duties as are requisite; the boys are variously disposed. Farmer Goodyear and his son Thomas come in to spend the evening, and there they sit and discuss the whole round of farmers' duties—the crops—the prospects,—&c., &c., and as likely as not they end their evening conversation by a discussion of national or State politics, for no men are better *posted up* in such matters than these two farmers. The women folks talk of their butter and cheese, their caps, bonnets, dresses, &c., and the younger fry engage in such conversation and fun as befits the time and place. The old clock in the corner strikes ten. The visiters, with the asseveration "that they didn't have any idea it was so late," bid good-night; the family assemble around the table, the Holy Book is read, and an ardent and sincere prayer ascends to Heaven, and then all is hushed and still in that dwelling, till daylight begins to streak the East, when the bustle of a new day of labor and happiness is welcomed with thanksgiving; and so pass away the OCTOBER days and nights of Farmer Wellman and his neighbors.

And with the beautiful rotation of the seasons, pass the beautiful rotation of the farmer's labors and the farmer's pleasures. Honest industry is sure to afford independence, happiness, and peace at *all seasons of the year.* The farmer depends more than any other upon the beneficent God above him, and the yielding earth beneath him, and every other occupation in life depends mainly upon the farmer. Honored and respected beyond all other employment, be that of him who tills the soil.

But, bless me, and yourself too, kind reader! We have become so interested in the pleasures and appearances of OCTOBER, that we had well-nigh forgotten its appropriate *duties*, and must leave them now to your own good sense and suggestions; only hoping that beautiful October may prove to each of you, all that we have said of it above.

For the New England Farmer.

COUNTY SHOWS.

On looking over the appointments for these, it seems they are to be holden in *five* of the counties, on the 26th and 27th days of September—in *four* of the counties, on the 3d and 4th days of October —in *four* of the counties, on the 10th and 11th days of October. Might they not be so arranged as to come on successive days, between the 20th of September and the 20th of October? Ought it not to be provided by law, that all those societies which are sustained by the bounty of the State, should have their exhibitions at such times as the Board of Agriculture may direct? *.

For the New England Farmer.

RAPE PLANT.

Noticing the communication of "P. A. F.," of Shaker Village, N. H., and "A. B.," of Sudbury, I remark that there is a summer and a winter variety. The seed of the former is not quite so large as the latter sort, which was probably tried by both of your correspondents, but better suited to the New England climate. It is the same as is imported from Germany and Holland, and sold by the name of Dutch rape. That known in the market as English rape, is the winter variety, and is mostly imported from England. I have a patch of summer rape now in bloom, which was sown in drills in May, and some of the lower seed-pods have nearly filled out. The seed sells at about $4,00 per bushel, and as the grower in this country is protected by a duty of 10 per cent., it certainly seems as though we ought to supply our own market. The only crop that ever came within my personal knowledge in this country was raised by a farmer in Pennsylvania, who thought that it paid him well at $2,50 per bushel. It will grow on any piece of land that will produce turnip seed. The plants should be left standing about 18 inches apart.

W.

For the New England Farmer.

THE PROGRESS APPLE.

The *Progress Apple* is a native of this place, and the original tree is now standing,* although it has probably yielded regular crops from a period quite remote.

Situated as it was, where farms have been well stocked with apple trees yielding good fruit in great abundance, its good qualities were not immediately tested, and it was at first considered only as a late fall apple. But they were found, after a fair trial, to rival the best winter apples as a late keeper; thus they are a favorite for the table from October to April. The tree is a good grower (not quite so rapid as the Baldwin) and forms a very handsome head; bears early, regularly, and most abundantly.

Fruit rather above medial size, roundish, and very fair; skin smooth, and when gathered, a light green, with a tinge of red in the sun; when fully ripe, a clear light yellow, with a beautiful blush on the sunny side, and sometimes sprinkled with a few scattered gray dots. Flesh very tender, juicy, with sprightly and remarkably agreeable flavor. As a market fruit it is very profitable, owing to its productiveness and ready sale. The trees bear well by the road-side, or in pastures, and in the cultivated garden or orchard the fruit is superb.

They have not failed for years to draw a premium from the Middlesex County (Conn.) Agricultural Society, and at the Connecticut State Fair last October, took the first premium as best new seedling. It deserves an extensive dissemination, and is sure to do well in any of the Northern or Western States.

P. M. AUGUR.

Middlefield, 1855.

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* The old tree stands on land of Alvah Coe, formerly of old Esquire Miller, and for some time was called *Esquire Miller's best.*

For the New England Farmer.

A VIEW OF LABOR.

MR. EDITOR:—Manual labor or work is dreaded by some, and despised by others, and very few have a natural love for it. The love of labor is acquired by habit and perseverance, in a great measure. God made man dependent upon his own efforts to feed and clothe himself; he has hands, and intellect to direct his hands, and God has shown no partiality in the formation of any class of individuals as an exemption from labor, or promised prosperity to spring from habits of idleness. Among savages and other improvident people, starvation, as a punishment, is the inevitable consequence of their indolence and disregard to the faculty of foresight. Farmers and mechanics have frequently failed for want of self-respect. Instead of herding together, as the manner of some is, in low drinking houses, to degrade themselves, if they would spend their leisure hours in using means to inform, enlarge and elevate their minds, by reading the productions of good, well-informed authors, or meeting together to lecture each other on the subjects of their respective callings they would soon find that instead of being degraded by labor, that degradation had sprung from another cause. Ignorance and vicious habits will depreciate a man's self-respect and often lessen his self-esteem. The farmer who is supplying the world with the staff of life, ought to consider his position as high, and his occupation as respectable, as the quack that supplies the world with his nostrums, impregnated with the seeds of death, or the mountebank that gets rich by his impositions practised upon a credulous multitude.

It is the *man* that makes his calling respectable, and not the calling the man,—an infamous character will disgrace any profession. Labor has a moral influence connected with it; there is less dissimulation and temptation to dishonesty among farmers and other laboring classes, than exists among politicians and the learned professions. The man that labors ought to consider himself a *man*, and use the means to be a respectable man, and that will elevate his business to respectability; let him qualify himself to fill his station, be it what it may, by gaining the requisite knowledge required to make him master of his art, whether farmer or mechanic, then he will have confidence enough in himself to have a mind of his own, and not feel degraded at seeing the displays of officious coxcombs that make pretensions to superiority.

After all the arguments and examples to the contrary, a good moral character is an essential ingredient in the formation of a man. A rogue, himself being judge, esteems an honest man more than one of his own feather. What man whose character for knavery is established, can abide long in a place? He is like the troubled sea, and has to live by shifting his place and changing his name, and wants eyes behind to see who is in pursuit; once a rogue, always suspected. No man under the sun, who knows right from wrong, or has any regard for his own good, who will not enjoy himself better, and wear a more comfortable conscience by working either by hands or head than spending his time in idle dissipation. That the impression gained credence, or prevailed among mankind, that labor was the curse of God for Adam's disobedience, is preposterous; when he said to Adam, "in the sweat of thy brow thou shalt eat bread," the prediction or admonition is rather to be considered as the prescribed means of self-preservation, than as a curse on him for disobedience. Labor and health are so dependent upon each other, that we may as reasonably consider health a curse as to consider labor a curse. And to wind up: an idle man, whether rich or poor, is an excrescence deriving its nutriment from the industry of the working classes of the community, and merits the curse for his laziness and breaking the fourth commandment as much as Adam did for his disobedience.

Wilmington, 1855. SILAS BROWN.

For the New England Farmer.

REMEDY FOR CURCULIO—APPLE TREES.

MR. EDITOR:—I noticed in the *Farmer* of June 30, a communication from John P. Wyman, upon the ravages of the curculio, and have since been looking for some person to point out a remedy. I have for years been unable to obtain plums in consequence of that insect. This season, having made an ointment by mixing sulphur with yellow snuff in lard, and applying it to the body and limbs of the trees, I have so far checked their operations as to allow the trees at this time to give promise of an abundant crop.

Mr. Wyman appears to despair of good results from his apple trees. I think him premature in his conclusions; there are, probably, a number of reasons why he has not a good crop; his trees may be making wood too fast to bear fruit. I have some in that condition, and I have noticed the same in other orchards, which have afterwards yielded abundantly. Mr. W. speaks of a fine blossom this year; it was so with many of my young trees which have now less than a dozen apples each, and yet I cannot attribute it to the insects entirely, as trees of the same age, and in the same orchard, are now loaded to excess with the choicest fruit. This result would surprise me, had I not for years been acquainted with the character and habits of these different kinds of fruit. If Mr. W. would make an investigation, he would probably find that the trees from which his sprung, have been in the habit of producing their main crop in the even years, and that his trees being a part of the original tree, will ultimately develop the characteristics of the parent.

If Mr. W. will take the trouble to call on me, I will show him some trees, burdened with choice fruit, than which none better can be found in the country, which have been in the habit of bearing abundantly in the odd years only, resting from their great exertion through the even years.

Mr. W. need not despair since such fruit may be introduced into his orchard.

CHARLES EASTMAN.

South Hadley, Aug. 24, 1855.

GOOD HORSE PROVENDER.—The best provender that we ever gave to a horse was a mixture of two-thirds oat meal and one-third corn meal. The oat meal had been thought by some physiological chemists to contain much muscle, or flesh-forming matter, and the corn meal to contain much fat-forming material, and therefore, when combined together, we get both principles combined. Our experience with this feed corroborates the above theory.

A writer over the signature of W. W. B., in the

Rural New-Yorker of the 21st, recommends a mixture of oats and rye for horses. We think his plan of raising the two together, pretty good, and we therefore copy it.

"I had," says he, "a conversation with a man lately, who was an experienced farmer, having farmed both in this State (N. Y.) and Ohio, and his manner of raising horse feed was this:—I take about 2½ bushels of oats, and mix with them one bushel of rye, and sow this amount to the acre. The rye will support the oats in case of a heavy growth, and prevent lodging. In this manner I have raised sixty, seventy, and even eighty bushels per acre." The soil must have been very strong to do that, but the mixture is about in the right proportion.

A MORNING IN A MARKET GARDEN.

The large farmer, who raises broad fields of wheat, corn, potatoes and oats, and pastures and milks or fats herds of cattle, might find lessons of pleasure and profit by an occasional visit to some of the market gardens in the vicinity of Boston. Unless he has already done so, he little conceives what a different kind of business the cultivation of those gardens is, compared with the ordinary modes of farming, and what an amount of product they are forced to yield. Such a visit would afford him many excellent suggestions as to his own modes of culture, and would enable him to supply his table with the choicest fruits and vegetables, and to produce the latter in great abundance, at a cheap rate, for the stock of his own farm.

We were invited last week to look at the gardens and grounds of Isaac P. Rand, Esq., of Roxbury. Mr. Rand is one of the firm of *Rand & Darling*, Quincy Market, who deal largely in all sorts of vegetables. Their sales of sweet potatoes this year, at the rate already attained, will be nearly *thirty thousand bushels!* the collecting, packing and shipping of which requires the time of one or two men for several months at the South.

The grounds Mr. R. cultivates at Roxbury were originally of the roughest and most forbidding character; covered with ledges and boulders of that peculiar character called pudding stone, and mingled with them, briars and bushes of every description. The large rocks have been used in one of the most beautifully constructed as well as substantial stone walls we have seen, and hundreds of tons of the smaller ones in the ditches that underlie every part of the garden. All this, however, did not clear the grounds, as there is scarcely a square foot now but is covered with the flint-like pebbles broken from the masses of pudding stone, or with its softer and decaying parts. The hoe must ring at every stroke, and the plow grumble as it goes like a young volcano beneath the feet. And yet this land, with all these difficulties to contend with, is annually covered with the most luxuriant and perfect crops, and is a striking illustration of what skill and industry may accomplish.

These gardeners are not content with one or two crops, the same season, but force the soil to yield three; beginning, perhaps, with early peas, then potatoes, and closing with cabbages, celery, or some plant not easily affected by the frost. But *two* crops is common on nearly all the land they cultivate. Where we saw sweet corn just getting large enough to boil, some other crop had been cultivated, harvested, and sent to market. Half an acre in celery had yielded a good crop of onions this season, and so of many other things. The soil itself is fine, porous and warm, so that when highly manured, seed germinates quickly, and the young plants grow rapidly. But in order to accomplish all this, large quantities of manure are necessary, and these they procure from the stables where the omnibus horses are kept in Roxbury.

On visiting the house, we discovered something of the secret of Mr. Rand's success in gardening, in a well-selected library. He has not been entirely satisfied with the experience of himself or his father, who cultivated the same grounds many years before him, but has sought information from the experiences of others in our own country, and in the best foreign works which treat of his business. In this way he avails himself of the improvements which science suggests, and the knowledge gained by others in similar pursuits.

We found both gratification and profit in our visit, and have no doubt our farmer friends may do the same by spending a morning in some one of the numerous market gardens in the vicinity of Boston.

For the New England Farmer.

INQUIRIES ABOUT HORSES.

Mr. Editor:—I am a constant reader of your monthly. I have always worked on a farm, and like to be about horses. Having seen an article in your weekly, entitled, "A Short Chapter on Horses," I am induced to make a few inquiries respecting them. And first, allow me to ask if I should be likely to get a good colt from a mare that is very stout built, but a rather clumsy traveller, and carries her mouth a little open if her head is checked up, but shut if she is allowed to carry it as she pleases, which is very low? She is a first-rate work horse. The stallion is a noble animal, rather more than medium height (the mare being short-legged,) with a fine head and neck, is deep through the shoulders, full breast, and is altogether a very fine figure.

I am fond of riding horse-back. Will you please inform me of the best method of training a horse to the saddle? Is it a good plan to "bit" horses? Can a long-gaited horse be made to stop short, by checking the head higher, or in any other way.

August, 1855. An Inquirer.

Remarks.—Proper answers to all these queries would be of service to many persons, and we hope some one well acquainted with the subject will reply to them through the *Farmer*.

U. S. AGRICULTURAL SOCIETY.

SCHEDULE OF PREMIUMS.

Premiums will be paid in silver plate or money, at the option of successful competitors, who must become members of the society; and the beautiful Diploma of the society will be presented to every Exhibitor to whom a Premium is awarded.

CLASS I.—CATTLE.

No. 1.—THE HERD PREMIUM.

For best Bull and four Cows, from any one herd	$300
For 2d best do. do.	100

No. 2.—SHORT HORNS.

BULLS.

Three years old and upwards, 1st premium	$100
do. do. 2d premium	50
do. do. 3d premium	Diploma.
Two years old and under three, 1st premium	$50
do. do. 2d premium	25
do. do. 3d premium	Diploma.
One year old and under two, 1st premium	$25
do. do. 2d premium	10
do. do. 3d premium	Diploma.

COWS AND HEIFERS.

Three years old and upwards, 1st premium	$100
do. do. 2d premium	50
do. do. 3d premium	Diploma.
Two years old and under three, 1st premium	$50
do. do. 2d premium	25
do. do. 3d premium	Diploma.
One year old and under two, 1st premium	$25
do. do. 2d premium	10
do. do. 3d premium	Diploma.

No. 3.—DEVONS.—*Premiums the same.*

No. 4.—AYRSHIRES.—*Premiums the same.*

No. 5.—HEREFORDS.—*Premiums the same.*

No. 6.—JERSEYS.—*Premiums the same.*

No. 7.—GRADE COWS.—*Premiums the same.*

No. 8.—NATIVE COWS.—*Premiums the same.*

No. 9.—MILCH COWS.

Five years old and over, 1st premium	$100
do. do. 2d premium	75
do. do. 3d premium	50
do. do. 4th premium	25
Three years old and under five, 1st premium	$75
do. do. 2d premium	50
do. do. 3d premium	25
do. do. 4th premium	15

No. 10.—WORKING OXEN.

Four years old and upwards, 1st premium	$100
do. do. 2d premium	50
do. do. 4d premium	25

No. 11.—STEERS.

Two years old and under four, 1st premium	$50
do. do. 2d premium	25
do. do. 3d premium	15

No. 12.—FAT CATTLE.

Fat Bullock, 1st premium	$75
do. 2d premium	50
do. 3d premium	25
Fat Cow, 1st premium	$50
do. 2d premium	25
do. 3d premium	15

CLASS II.—HORSES.

The premiums on horses vary from $200 to $20; want of space prevents us from enumerating them.

FAMILY HORSES.

1st premium	$100
2d premium	75
3d premium	50
4th premium	25

DRAFT HORSES.

Matched Draft Horses, 1st premium	$100
do. do. 2d premium	50
do. do. 3d premium	25
Single Draft Horses, 1st premium	$50
do. do. 2d premium	25
do. do. 3d premium	Diploma.

On Tuesday afternoon, Oct. 23d, a trial of speed will be held, open to all horses that have never trotted for money. Exhibitors to drive, and to be persons who have never driven for money.

1st premium	$200
2d premium	100

On Wednesday afternoon, Oct. 24th, a trial of speed, open to all horses that have never trotted for money. Free to all drivers.

1st premium	$200
2d premium	100

On Friday forenoon, Oct. 26th, a grand trial of speed, free for all trotting horses and all drivers.

1st premium	$300
2d premium	100

CLASS III.—SHEEP.

Premiums range from $25 to $10, and 36 of them are offered, and 10 Diplomas.

CLASS IV.—SWINE.

Twenty-six premiums are offered, varying from $25 to $10.

DISCRETIONARY PREMIUMS.

One thousand dollars have been set apart by the Executive Committee, to be awarded in discretionary premiums, should objects of *special interest*, not provided for in any of the classes, be presented.

For the New England Farmer.

SHORT PASTURES.

On all sides we hear complaints that feed is short. The milkman says his cows are falling off. The butter man says that his cows do not give their usual measure;—that he must cut off a pound from each of his customers. What shall be the remedy for all this? I prepared for this in the spring. I planted corn in May and June, that I might have it to cut up in August and September, ready to be distributed to the cows every night on their return from pastures. But, says the careful calculator, "of what use is it to distribute green corn to cows? It will not increase their milk. I have tried it again and again, and am satisfied of this." Can this be so? It is so averred by sensible men. I have often heard it, and could name them. Why it is that an article of food so palatable and nutritious as green corn is supposed to be, will not produce milk, it is not easy to understand. That this kind of feed will continue the animals in good condition, and improve their butter products, is clear beyond doubt. In proof of this I beg leave to quote a paragraph from an address by TIMOTHY PICKERING to the Agricultural Society, February, 1828, of which he had just been made President.

"Every farmer knows how eagerly cattle devour the entire plant of Indian corn in its green state. Some years ago, just when the plants were in the milk, I cut close to the ground the plants growing on a measured space, equal, as I judged, to the average product of the whole farm, and found that at the same rate, an acre would yield twelve tons of green fodder; probably a richer and more nourishing food than any other known to the husbandman." * * * "It has appeared to me that the sort called *sweet corn* (having a white, shrivelled grain when ripe) yields stalks of richer juice than the common yellow corn. It is also more disposed to multiply suckers,—an additional recommendation of it, when planted to be cut in its green state, for horses and cattle, and especially for milch cows; and its time of planting may be regulated so as to furnish a supply of food, just when the common pastures usually fail. I am inclined to doubt whether any other green food will afford butter of equal excellence."

In September, 1828, in his last address to the society, Col. P. says,—"The great value of Indian corn stalks, in their green state, for feeding cattle, milch cows, especially, I have formerly mentioned. To have this fodder in its green and most juicy state, it should be planted at different times; so that the latest planted should attain its proper growth by the middle of September, and continue till the frost comes, at the close of the month, or early in October." Thus we see his *first* and his *last* lessons of instruction to the farmers of his county, recognized green corn fodder as a valuable feed for milch cows.

I frankly admit these quotations do not prove that cows when fed on green corn will give more milk for being thus fed—but they come so near establishing the fact, that I think it will be taken for granted, until the contrary is clearly shown, by authority more reliable than that of Col. Pickering.

August 25, 1855. AGRICOLA.

CROSSING SHEEP.

For upwards of fifty years I have seen a great deal of crossing the different kinds of sheep—Leicesters with Leicesters, Leicesters with Cotswolds, Leicesters with South-Downs, and Leicesters with many other kinds of sheep. I have always found the Bake-well or Leicester sheep to improve every kind they have been put to, by giving them the Bakewell barrel form, small bone, and to feed at early maturity. The first cross in most animals has been proved the best; the next cross generally produces size and weight, except you put a gigantic animal to the first cross: when I say gigantic, I do not mean an animal made a giant with fat flesh, with the head and ears of a dwarf upon him—I mean a giant in frame when in a lean state, with bone in proportion, aye, and a head and ears in proportion to his body—a long, thin head, and not a gigantic broad one. Giants do not produce dwarfs, neither do dwarfs produce giants, any more than bulldogs produce greyhounds. It has been proved that a gigantic ram has been produced from a dwarf ewe; at the same time, it was proved that a giant ram lay in the adjoining field, which very easily accounted for the giant being produced from a dwarf. It has always been said that like produces like, and a fine bone denotes a feeding propensity, and a long face and ears, with a Roman nose, denotes a large breed. The breeders of Lincolnshire sheep say that neither the Cots-wolds nor the Downs mix well with their heavy-wooled sheep, but a dip of the Leicester does wonders. So says the far-famed Mr. Kirkham, of Hagnaby. Mr. Bakewell always said that extremes were bad, and that the middle-sized animals answer the best for profits. But, above all things, said Mr. B., let an animal's make be in proportion—not very large in one point, and very deficient in another. Size has nothing to do with profit; it was not what an animal made, so much as what it cost making. The Lincolnshire farmers are second to no men in the improvement of waste lands; the Wolds, Lincoln Heath, and the Fens, for instance: the lower parts are now drained by steam engines. And the breed of sheep which they have is the most profitable for their county. SAMUEL ARNSBY.—*Mark Lane Express, London.*

MR. MECHI'S MODEL FARM.

We find the following notice of Mr. Mechi's farm at Tiptree Hall, England, in the *New York Tribune*, furnished by its correspondent, "M. T. H." Mr. Mechi was not bred a farmer, but a tradesman, in London.

Once every year, just at the close of the London season, when every one in town is sighing for a breath of country air, just before the commencement of the harvest, when the green wheat, fully grown, is just beginning to get the first tinge of gold upon its ears—once a year, when the days are hottest in the town and brightest in the country, Mr. Mechi has an "Agricultural Gathering" at Tiptree Hall. To this gathering are invited all the notabilities of the day—Ministers of the Crown and Ministers of the Gospel, Poets and Plenipotentiaries, Peers and Commoners, Lawyers and Literati, Citizens and Country-folk, Tradesmen and Farmers, imitators and admirers, all turn out to see "Mechi's Model Farm." To these, collected at his hospitable Hall, Mr. Mechi proceeds to show his improvements. He walks them over his fields and through his stock-yard—he expatiates upon his difficulties and explains his improvements—he discourses on his crops, exhibits his machine, lectures learnedly on his manures, shows how he distributes them, and when the party have acquired sufficient information and astounding appetites, he concludes the day by setting them down to a banquet such as a Londoner alone knows how to manage.

Now that politics are no longer mixed up with Mechi's model processes, and now that all parties will consent to hear and think of Tiptree farm without prejudice, I shall have a chance of being listened to, if I tell you quite the truth concerning it, and lead you to regard it as it is, and not as you would see it through the spectacles of faction. As a place of country resort, then, I am bound to say in the first place that Tiptree Hall is one of the least pleasing I ever chanced to visit. England is proverbial for its pleasant places. Who, in your back woods, however improved may be his material condition, will not sigh at the fond remembrance of the village home in which he grew—of the white church spire that pointed up to heaven so fondly from the clustered elms of the old manor-house, scenes of many a farm-house and Christmas revel, of the clear, bright, never-failing stream that rippled past his cottage door, the village green on which he fought his earliest battles, the lane so calm, so tranquil in the evening shadows, where he courted the first fair object of his love, the bank where grew the earliest and brightest primroses, the bean-field that exhaled its thousand odors to the dewy evening, the cultivated farm, the busy mill, the meadow where the land-rail craked, the pile from which he caught that first glimpse of the wide, wide world, that taught him there was something beyond his lowly lot, and that tempted him, perchance unwisely, to desert it: Alas! alas!

But Tiptree Hall is unconscious of all this. Situated on an elevated, bleak and barren heath, without a tree within a mile of it larger than a laurel, it boasts not a single rural beauty, such as we regard rural beauty in this country. Mr. Mechi has made a great effort to compensate for this by artificial gardening; but though everything has been done that a cultivated taste and a lavish expenditure could effect, yet the result, as a whole, is eminently unsatisfactory. Terraces and embankments have been thrown up to relieve the flat monotony of the landscape—a bog has been converted into a series of little lakes—walks of every possible variety have been wound around plantations—tender shrubs have been planted and effectually reared on spots where nature never intended that a shrub should grow—flower beds have been laid out with all the elaboration of which the Italian style of gardening is susceptible—color has been properly introduced where nothing was to be seen but drab-colored heather—but still the result is unsatisfactory. The place, in fact, as a retreat, has no capabilities. Nature has pre-determined that there shall be about it none of the specialities of an English farm, and Nature has yet, in this respect, been too strong for man.

But what of Tiptree as a "model farm?" Is it what it professes to be? Is it what Sir Robert Peel described it? Is it an example which the farmers of the world may advantageously consult and imitate? Now, as to this point I must frankly say that my notions are poised so very equally in my mental scales, that I am unable to give a distinct or satisfactory reply. I have seen better things in farming than Tiptree Hall, many better things; but while I declare this, I must also acknowledge that I never saw so remarkable an example of what industry and enterprise may accomplish under the most unfavorable circumstances. Certainly no one but a man accustomed to get sharp edges from the collision of steel and stone, ever would have thought of trying to cultivate such a place at all. One would fancy that Mr. Mechi had taken up an idea from his shop that you could get a good crop out of stones as well as a keen edge. You should have heard his own account of what Tiptree farm was when he came there! "Vainly," said he, "did I try by solid manures to render this vile, plastic clay, a useful pasture. It was like bird-lime in Winter, and like cast-iron in Summer. Poor, indigenous and drab-colored grasses, choked and eradicated the finer kinds I had sown, and the animals wandered about, hollow and dissatisfied. Now, fine and fattening grasses clothe the fields with perpetual verdure, the land keeps three times as many animals, and the close and shaven pasture indicates their affection for it." And this description of Mr. Mechi's pasture is a fine description of his whole farm. Where the drab-colored grasses were alone seen ten years ago, crops of the finest wheat, barley and oats now clothe the wold, and greet the sunshine as it merrily glances from the heavens. Every one admits that there can be no finer crops. They are grown from very small quantities of well selected seeds; but these small quantities, under Mr. Mechi's system, seem to be more productive than large quantities any where else.

How, then, have these results been produced? The answer is simple. By deep drainage and liquid manures, regardless of expense. Mr. Mechi's knowledge of chemistry taught him that the worst soil might become better, by allowing their pores to be fermented by the sweet rains of heaven. Every clod in the hard clay at Tiptree was choked by stagnant water. He drew it off by deep drainage. Then the plow let in life and light upon heaps of earth which had never felt the influence of either. Still, though the land was broken up—though from a hard, cold clod of clay, it had been converted into a dry wold—still, it was poor and needy. Mr. Mechi's next application to it was, accordingly, intended to give it strength and heat. By means of pipes carried all over the estate, liquid manure was laid on freely wherever it seemed to be required, and the ground soon showed how much it was strengthened and how much it was disposed to give a grateful and hearty acknowledgment of the favor conferred upon it.

In by-gone times it used to be a great joke with the farmers to ask Mr. Mechi where was his "balance sheet?" You may grow a crop upon one of your own razors, was the argument, but what will it cost you? For many years, while the price of wheat was low, Mr. Mechi was compelled to acknowledge that he had invested more in the soil than the soil returned him. But things have now changed, and Mr. Mechi retorts the joke upon the farmers. "It is not," says he, "the man who farms with the least expense, who makes the most money. When prices were low, and labor was low, I invested large sums of money in the land; now that prices are high, I invest no longer, but I reap the benefit of my investment at low prices. My fields produce more than yours; my returns are, consequently, greater than yours. And it is the result of investment in improvements at periods when improvements can be made at low rates of wages." Such are the arguments of Mr. Mechi. They are, to a great extent, of world-wide application, and I doubt not you have many on your side of the Atlantic, who will know how to apply them profitably.

For the New England Farmer.

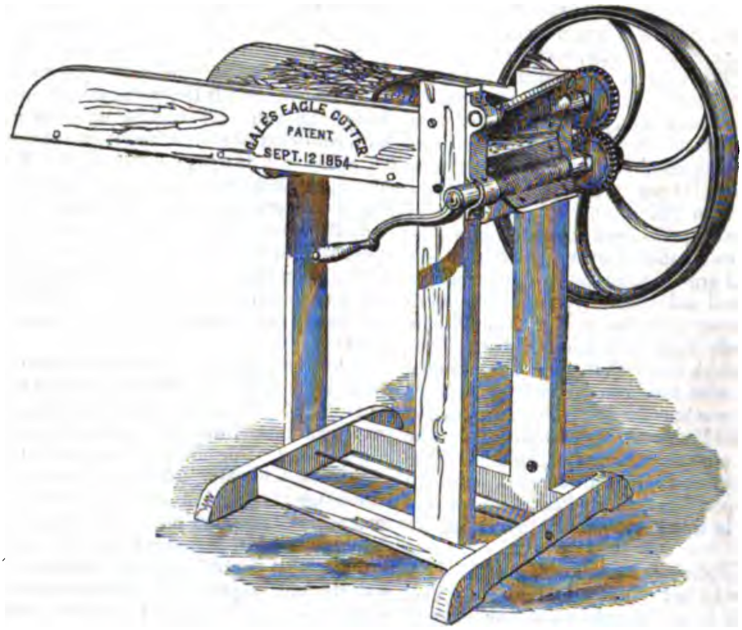
MURIATE OF LIME AS A TOP-DRESSING.

Mr. Editor:—I tried an experiment with the muriate of lime upon a lawn of about half an acre. The land was laid down and sown with herd's-grass and red-top last year without any manure. This spring I gave one-half the lot a top-dressing composed of three barrels of muriate of lime mixed with six cart-loads of meadow mud. The effect astonished me, and at the time of cutting the grass, I called a number of my neighbors to see the effect of the top-dressing, and all who saw it decided that there was full double the quantity of grass upon that part which was manured, over that which was not; the soil was of the same description, and laid down side by side.

Some of my neighbors have tried this article upon their meadow land, and with a like result. I consider it a very valuable manure, especially for grass lands, and am now having a large pile composted for next season.

Yours very truly, D. Wood.

Lexington, Aug. 20, 1855.



GALE'S STRAW CUTTER.

It is now certain that the hay crop in all eastern Massachusetts, and in several other parts of New England, will be a short one; flour is still at a high figure, corn commands an unusual price, the Southern yellow being sold, at wholesale, at $1,05 on the 1st of September, and rye and other grains proportionally high. Early frosts have already materially injured the corn crop in this region, and *hay will be high*. We do not say this from any anticipations of want, but merely to suggest a commendable prudence in the use of the fodder which has been laid by. This may be done by judicious feeding, such as changing the feed, by supplying it frequently in small quantities, but mainly by cutting and mixing the various kinds of hay or straw with roots or meal.

There is various machinery for cutting fodder, and in our judgment it is economy to use the poorest machine among them all, rather than to feed it out long; and this opinion is based upon a winter's experience in feeding eight or ten cows and a horse with cut feed.

In the number of the *Farmer* for January last, we spoke of a machine for cutting hay, called *Gale's Straw Cutter*, and gave the inventor's description. This machine we have had constantly in use since that time. A few days since our attention was called to one of the kind, to which has been applied some important improvements, and which are illustrated by the engraving at the head of this article. These improvements consist of several alterations, but the principal one is the addition of another knife—giving two knives instead of one, and doubling the quantity cut in a given time without materially increasing the amount of labor.

A person of ordinary strength may cut a common bundle of corn-stalks in this machine without over-exertion, and hay and straw, with a rapidity and ease altogether unattainable in any other machine we have ever used.

It is also so simple in its construction that any farm hand may take out the knives and sharpen them, or adjust the raw hide properly against which they cut.

If a person has but a single horse or cow, it would be good economy to purchase and use one of these cutters, as the saving made would pay for it in two or three years, while the machine would be left, and would last, with care, for twenty years to come.

It is for sale, at various prices and of various sizes, at the Agricultural Warehouse of Nourse & Co., 9 and 13 Commercial Street, Boston.

Iron Tablets for Orchards, &c.—We had on exhibition, sent in as samples by the manufacturer, iron tablets, 17 by 23 inches, on which is printed, in raised letters, (covered with paint, bronze or gilt,) so as easily to be read, a copy of "An act for the better protection of orchards, gardens &c.," intended to be placed in some conspicuous position on a post or tree in the grounds. The manufacturer has placed them for sale at the various horticultural and agricultural warehouses in the city. Every town throughout the Commonwealth should instruct their Selectmen to purchase some of them, to be fastened on guide-boards, as a protection for fruits, flowers and cranberries.

For the New England Farmer.

LABOR-SAVING MACHINERY.

MR. EDITOR:—It was my privilege, a few days since, to witness some of the operations on the farm of Mr. FAY, of Lynn, which have contributed to the formation of fertile fields, where very little grew before; and which now continue them in successful culture, at an expenditure of labor greatly abridged, compared with the products grown thereon. Among these is a machine for *planting*, *thinning* and *weeding*, moved by horse-power, which, judging from the products now growing, does its work to perfection. This machine was introduced from England, at an expense of $140, but is so much more complete than anything of the kind I have seen elsewhere, that I would commend it to the notice of all curious observers. No person can look upon the extended field of turnips, beets and parsnips there growing, as also Indian corn, to all of which no hand labor has been applied, and not be struck with the operation of the machine, and the benefit accruing from its use.

I also saw in operation a *Rock-Lifter*, exceedingly well calculated to relieve our New England farms of many troublesome incumbrances—especially in the way of the plow and of the mower. By the help of this implement, I believe that two men, with one pair of cattle, had taken out from their original position more than one hundred stones in one day, averaging three tons each, and transferred them to the foundation of a wall, where they were made useful for a fence, thus doubling the value of an acre of land, for purposes of cultivation. Whoever would know more of these operations, can easily learn, by calling on Mr. D. Wetherbee, the farmer on the premises, who will take pleasure in communicating instruction to all who wish to learn. Mr. FAY is one of those theoretic farmers, who *preaches well*, and *practices better*.

September 1, 1855. *.

For the New England Farmer.

WORK OF MOWING MACHINES.

I have recently seen a statement of the work done by one of *Manny's machines*, the present season—54½ acres yielding 80 tons of hay, cut in 43¾ hours' labor, with a pair of horses. The person who used this machine, thinks the saving made in grass, as compared with the ordinary mode of cutting, would be fully equal to a fair price for cutting, *say one dollar per ton*. One cog and one tooth gave way during the operation, for want of proper care in management. He thinks he could cut fifteen acres in a day without unreasonable fatigue of the team. These facts are stated, not because they are extraordinary, but as showing what can be accomplished by a good farmer on his own farm.

Sept. 6, 1855. *.

For the New England Farmer.

OURS AN AGE OF IMPROVEMENT.

BY JOHN GOLDSBURY.

The age in which we live has been denominated the age of improvements. In some respects, this is true, but not in every respect. It is true with regard to the inventions and discoveries which have been made in science and the mechanic arts; for, never, since the world began, has there been a time in which so many, so great, and so remarkable improvements have burst upon the world, in a like period of time, as during the past fifty years. These have taken place, one after another, in such rapid succession, that the public mind has hardly had time to subside from the excitement produced by the discovery of one improvement, before it has been again excited by the discovery of another, the magnitude and importance of which have astonished the world. These inventions and discoveries have produced new and important changes in our modes of living, and in the business transactions of the whole world. All the oceans, lakes and rivers are navigated by steam, and the different parts of the world are brought nearer to each other. The "steam-horse" is heard puffing round our hills and through our valleys, transporting the surplus productions of one part of the country to another. And steam power has been applied to propelling almost all the machinery in the world. Besides, the improvements which have been made in machinery itself are truly astonishing. And when we take into consideration the transmission of intelligence, from one part of the country to another, with the speed of lightning, by the electric telegraph, we are ready to admit, not only that we have lived in an age of improvements, but in a wonderful age. All these inventions and discoveries have taken place within the last fifty years. Mechanical science has advanced with strides so rapid and long, that many are anticipating the period, when, by the discovery of some new agency, or by some new application of an old one, we shall be able to travel through the upper regions of the atmosphere.

But the question we wish to consider, is, whether the science of agriculture has kept pace with these noble and truly valuable improvements? Truth and justice require a negative answer to this question. For, ever since the occupation of this continent by the Europeans, and until within a few years past, the cultivation of the soil, in any true sense of the word, has been almost entirely neglected. The system of cultivation, if it may be so called, was a retrograde system, a system of deterioration and destruction. The forests fell before the woodman's axe; the trees were burned on the ground; the fields were rapidly cleared, and sowed with grain; the earth yielded bountifully; man took the crop, but he made no returns by cultivating and enriching the soil. The consequence has been a regular and constant diminution of the products of the soil, till the farmers began to think that their lands were worn out, or had become entirely exhausted and worthless.

Within the last twenty years, however, a new impulse has been given to agricultural education, by directing attention to the nature and properties of different kinds of soils, and to the nature, character and elements of manures and other fertilizing properties. It was soon discovered that the old soils were neither worn out nor exhausted, but required to be enriched, regenerated and cultivated. The discovery that potash, soda, magnesia, lime, &c., were, in fact, the oxides of metals, led the way to improvement. The elements of plants were examined, showing their similarity with the soils on which they grow, and the due proportions in which these elements exist in plants for their perfect development. The action of the atmosphere upon the soil, the influence of rain and sunshine on the growth of plants, the necessity and action of vegetable decaying substances, and the various agencies thus carried on for our benefit, have all been discovered, and are now well understood by every scientific farmer. Still, the application of knowledge, of science, of art to agriculture, is not, even at this day, generally understood or widely disseminated; the number of scientific farmers is small. We have no schools, academies and colleges, especially devoted to giving instruction in agriculture. The farmers, the producers, the very foundation and means on which all other classes are constructed and supported, are without a single school, academy, or college, devoted to giving instruction in the application of chemistry to agriculture. All the knowledge which has been acquired on this subject, has been given to the young, showing the connection between chemistry and agriculture. They have never had exhibited to the eye and understanding, any experiments on the all-important subject of farming. "These things ought not so to be."

As a class, farmers far outweigh in natural advantages every other class; in numbers, they constitute more than three-fourths of the whole nation; yet, strange to say, that, as yet, they have never received any adequate instruction in their high calling—a calling, which, in truth, demands as high an education for its perfection, as any other position in life. There is the same necessity for shedding the light of science on agriculture, that there is upon law, medicine, commerce, manufactures, and the mechanic arts. And no one but a quack would think of following either of these as a calling, till after he had devoted to them years of attention and study. A lack of interest on the subject of agriculture, is generally equivalent to a lack of knowledge; for, all who attend to it and study it as a science, become deeply interested in it; and the more they know, the more they desire to know. But poor farms, poor stock, poor productions of every kind, are the natural and necessary results of neglecting this study.

STAGGERS IN SHEEP.—Formerly I lost sheep by this disease, until by experiment I discovered a remedy, which has not failed me for many years, and I think it a safe as well as a sure remedy. About twelve years since I found that a nice ewe of mine, which had two fine lambs, was affected with this disease. She was down by the fence, at the side of the pasture, and when she endeavored to walk or run, would stagger and fall, and appeared to be blind. I went to her, took my knife out, cut off an ear close to the head, and to my surprise found the blood did not start; not so much as one drop could I obtain. Thinking my sheep as good as dead, I concluded to try experiments upon her. I returned to my dwelling, and taking a bottle of spirits of turpentine in my hand, went again to the pasture. I had been absent perhaps an hour, but the sheep had not moved from where I left her, and there was no discharge of blood from the ear. I poured perhaps 20 drops of turpentine into one ear; and after waiting a few minutes, I turned her over and poured the same quantity into the other. She soon began to shake her head, and a stream of blood ran from her amputated ear. In an hour she was apparently as well as ever. Since then I have used the same remedy, without cutting off the ear, and have never lost a sheep by the staggers.—*Rural New-Yorker.*

PEEPS INTO A BEE-HIVE.

There is nothing from the Master Hand, untouched by man, however small and insignificant it may seem to some, but is worthy of our careful study and investigation. We forget that the minute insect, or the worm upon which we tread with loathing and disgust, was framed and received the breath of life by the same Infinite Wisdom which created and animated us. They are governed by laws which they observe far more scrupulously than man does the laws which ought to govern him, even aided as he is by reason, a power they are not supposed to possess. We have no doubt that all the lower orders, even to the tiniest of them all, enjoy their little life, and contribute to carry out the general plan. If we studied them more, and became more familiar with their habits, we should lose all repugnance to them, and perhaps find lessons of value for every-day life in many of their works and ways. Let us see!

On the 17th of July last, we placed in our dining-room window an observing bee-hive, constructed of glass, so that all the operations of the bees could be plainly and conveniently seen. A comb about a foot square was placed in it containing some brood, with plenty of workers and drones, but *without the queen bee.* The hive was then carefully observed by one of the ladies of the family, who has given us the following account of their doings.

"The first business the bees attended to, was in commencing cells for a queen, and they prosecuted it with energy for two days. At the end of that time, a queen was taken from another colony and placed with them, upon which they pulled down the cells they had made in less than half the time it had required to construct them, and then began to piece out and repair the comb, which needed a corner. The queen at once commenced laying, and soon filled the unoccupied cells, when she was again removed, and the bees once more began the construction of queen cells.

The unhatched bees now began to come forth, and in two weeks the family increased so fast as to make it necessary for them to prepare to emigrate. So they built six queen cells, and in about twelve days, the first queen was hatched. As soon as she was fairly born, she marched rapidly, and in the most energetic manner, over the comb, and visited the other cells in which were the embryo queens, seeming at times furious to destroy them. The workers, however, surrounded her and prevented such wholesale murder. But for two days she was intent upon her fell purpose, and kept in almost continuous motion to effect it. On the fourteenth day the second queen was ready to come out, peeping and making various noises to attract attention.

A part of the colony then seemed to conclude that it was time to take the first queen and go, but by some mistake she remained in the hive after the swarm had left. The second queen came out as soon as possible after the others had gone, and then there were *two* in the hive! Several minutes elapsed before it seemed to be known that she was left, and the two queens ran about on the comb, which was now nearly empty, so that they could be distinctly seen. But they had not apparently, noticed each other, while the workers were in a state of great uneasiness and commotion, seeming impatient for the destruction of one of them; and the mode they adopted to accomplish it was of the most deliberate and cold-blooded kind. A circle of bees kept one queen stationary, while another party dragged the other up to her, so that their heads nearly touched, and then the bees stood back, leaving a fair field for the combatants, in which one was to gain her laurels, and the other to die! The battle was fierce and sanguinary. They grappled each other, and like expert wrestlers, strove to inflict the fatal blow, by some sudden or adroit movement. But for some moments the parties seemed equally matched—no advantage could be gained on either side. The bees stood looking calmly on the dreadful affray, as though they themselves had been the heroes of a hundred wars. But the battle, like all others, had its close; one fell upon the field, and was immediately taken by the workers and carried out of the hive. By this time, the bees which had left, made the discovery that their queen was missing, and although they had been hived without any trouble, they came rushing back, but not in season to witness the fatal battle, and the fall of their poor slain queen, who should have gone forth with them to seek a future home.

There was evidently sore disappointment in this result, for when they realized their loss, they uttered piteous cries, and for a day or two "refused to be comforted," wandering about, apparently without object, and in great confusion.

The hive was now crowded again almost to suffocation, and after a few days' uneasiness the bees all left and lighted on an apple tree near the window, from whence they were jarred off, and the queen and a half pint of the bees returned to their old quarters, where they are to-day, Aug. 30, doing well. A small colony made in July, was now brought forward, and after sprinkling it as well as the bees from the house, with peppermint water, so that they might be all of one odor, the two strange colonies were mixed, and have continued to go on harmoniously together."

Our operations with bees, and these observations by our "better half," have been under the direction of the Rev. L. L. LANGSTROTH, of Greenfield, Mass., a gentleman of fine native talent, aided by a most thorough classical education. Prevented from preaching in consequence of the state of his health, he turned his attention to the delightful study of bees, and for more than fifteen years has pursued it with all the patience and ardor of a first love, until he probably has acquired more accurate information than any other person who has yet written of them. He has explored the subject in other languages, and in his work has brought together the most agreeable incidents and information, making it more attractive than any work of fiction.

For the New England Farmer.

WHAT AILS THE APPLE TREE?

MR. EDITOR:—I have an orchard of fifty apple trees, (with peach trees alternately) set out in 1850, and now seven years from the bud. I noticed about four weeks ago the bark was affected on some of them; since then there have been more affected the same way. It is in spots from two inches to twelve or more in length, and about an inch wide, though in a few cases, extending nearly round the tree. Where affected, the outer bark cracks off from that adjacent that is not diseased, and the spots that are diseased shrink to the tree.

I have peeled a few to discover the cause, but could arrive at no satisfactory conclusion. In one case the inner bark of last year seemed to be gone, but the wood appeared bright, and I found a small worm about three-fourths of an inch long; although the bark did not seem to have been eaten by the worm; though it would seem that it was, (I am not entomologist enough to describe him,) it was not the common borer, it was slimmer. In other cases the bark was all dead and the wood black. In one case, the tree was girdled except the width of my finger, yet was growing finely, and looks bright. I found no worms except in that one instance. Two of my neighbors have trees of the same age, affected, though not so badly.

In all three cases the bark had been washed with alkali in previous years, though not this year. The first year, I made my solution a pound of potash to two gallons of water, one-half the strength of Mr. Buckminster's wash, since then I have used it weaker every year. Last season I used soap suds. Trees in this neighborhood that have not been washed are not so affected as yet; whether the washing makes the bark more tender, I leave you to judge.

I write, thinking the subject might be of interest to you, and to see if any of your subscribers are troubled in the same way. J. W. W.

Canton, Mass., 1855.

REMARKS.—Some of our correspondents will undoubtedly be able and willing to express their views of the difficulties stated above.

☞ It has been ascertained by experiment, that a cow will drink about eighty-seven pounds of water in twenty-four hours.

For the New England Farmer.

EARLY AND DESTRUCTIVE FROST.

Mr. Editor: — On the morning of August 31, 1855, there appeared the hardest and most destructive frost that I ever knew in the month of August, although I am over 56 years of age. I have taken a little pains to look over a part of my record of the weather, and find the following account for the past twenty-two years:

FIRST FROST IN EACH YEAR, SINCE 1834.

Hard Frost, so as to kill Corn, Beans, Potato tops, Pumpkins, Tomatoes, &c. &c.

		Thermon. at sunrise.			Thermom. at sunrise.
1834.	September 30	—	1845.	October 17	17°
1835.	September 17	—	1846.	October 11	25
1836.	September 7	28°	1847.	October 12	28
1837.	September 14	26	1848.	September 14	28
1838.	September 3	28	1849.	October 15	28
1839.	Oct. 5 and 6	29 and 33	1850.	September 30	27
1840.	September 23	27	1851.	September 26	28
1841.	October 3	29	1852.	October 6	27
1842.	October 7	27	1853.	September 30	30
1843.	September 13	27	1854.	September 21	26
1844.	September 28	28	1855.	August 31	28

Remarks.—During the whole twenty-two years there has been no frost in the month of August, in this and the neighboring towns, equal to that which appeared on the morning of Friday, Aug. 31, just past. The year 1836, nineteen years ago, the month of August came the nearest to it. In that month there were five frosts, viz: Aug. 10, 18, 21, 23 and 24; but not severe enough to do any great damage. In August, 1835, a little frost on the 4th. In 1834 none. In 1837 none. In 1838, Aug. 15, a very little in low ground. Since 1838, making sixteen years in succession, none during the months of August. And none of any consequence for eight of the sixteen years during the month of September, viz: 1839, 1841, 1842, 1845, 1846, 1847, 1849 and 1852. In those years, none in September equal to the killing one of August 31, 1855.

My cranberries have fared the worst. Not one in fifteen but what are rendered soft by being killed by the frost, and are therefore unfit to pick, unless done immediately, and made into sauce. We have done up some, and it tastes not so bad as might be expected, but not equal to fully ripe and unfrost-bitten ones. In fact, the loss to me by that frost I consider fully equal to *one-third of a crop*, to what it might be, had it kept off, till the last of September. Most of my potatoes were in the very height of growing, being planted on reclaimed swamp land, and the black potato, which grows late.

Yours, &c., Isaac Stearns.

Mansfield, Mass., Sept. 1, 1855.

For the New England Farmer.

EXPERIMENTS WITH GUANO.

Mr. P. L. O., a careful cultivator, the last spring, late in April or early in May, applied 25 pounds of Peruvian guano to *ten square rods*, or at the rate of 240 lbs. to the acre. This was upon a flat, high meadow, moist and fair soil, which had been mowed for a dozen years last past without any application of manures, or any manner of cultivation. When the crop was fairly grown, he cut from this lot 253 lbs. of good hay. From an adjoining lot of the same field, of like dimensions and character, (except the guano applied) he cut only 56 lbs.—showing an increase of more than four-fold, by reason of the application of the guano.

The field contains two acres, and he knows no reason, why a like effect could not have been produced throughout, under like treatment.

Suppose it to have been done, here would have been 8096 lbs. of hay, where there grew but 1792 lbs.—*three tons*, at least, created by the application of a fertilizing material, that cost not exceeding $20. I am no enthusiast in my admiration of fancy manures; but when I see well-attested facts like these, springing up in the natural way, I feel irresistibly impelled to state them, that others may have the benefit of the instruction. Mr. O. has made numerous other experiments, in the cultivation of crops, particularly vegetables, the details of which I hope he will give in due time, that others may profit thereby. There are so many fancy notions abroad in these days—when we get hold of reasones, we should cherish them as pearls of great value.

Truly yours, J. W. P.

South Danvers, Aug. 16, 1855.

AMERICAN WOOL IN ENGLAND.

Sometime since P. A. Browne, Esq., of Philadelphia, obtained from different parts of the U. States samples of wool, which he forwarded to the Society of Arts of London. The agent for the Commissioners of the permanent Exhibition of objects of Art and Industry, in a letter to Mr. Browne, acknowledging the receipt of them, says:—"The collection of samples of American Wools is of the *highest value and interest*, and I feel extremely obliged for your kind aid in collecting them." In a circular addressed to American wool-growers, Mr. Browne remarks:

The deposit of these specimens of fleece in this Museum, (where they can and will be examined by thousands of visitors,) I cannot help regarding as highly important to *your* interests, and the result will, I feel assured, prove creditable to this nation.

The consumption of wool in England is vast and increasing: last year the woolen manufactures of that kingdom amounted to 150,000,000 of dollars: and yet they do not *raise* one pound of wool fit for making the best broadcloths. The finest wool successfully produced in England, is from the South-Down, for the Merino is not suited to their climate. Formerly the British manufacturers depended for their supply on Spain—afterwards on Germany. and lastly upon Australia; from which latter place were brought in one year, upwards of 47 millions of pounds.

So soon as they ascertain, by inspecting these specimens, that the United States can raise wool quite as fine if not a little finer than any other country in the world, the demand will be extensive and lasting. So it was with *American cotton*, so it will be, I predict, with fine wool; and our wool-growers should prepare themselves steadily, for this great event. The agricultural disturbances, occasioned by the war in Europe, has injured German sheep breeding; and the pursuit of *gold* in Australia, has had its effect upon this portion of agricultural industry in that region, so that Great Britian will naturally turn her thoughts to this extensive Continent; where sheep may be raised, almost to any extent that can be contemplated. The farmers of the United States have only to be careful to form their flocks from the *best breeds*, and to keep them *pure—no crossing of species*,—and they will garner a golden harvest.—*Country Gentleman.*

For the New England Farmer.

DRAINING, &c.

MR. EDITOR:—One of the most difficult matters in carrying forward improvements in agriculture, is to maintain a correct system of teaching and practice. This fact is very evident to the observing man, when he sees so many different theories set forth as guides to go by. Many of these theories are absolutely false, when reduced to practice, while others are of such doubtful utility that they will not pay the farmer for trial or investigation.

Among other theories which have of late sprung up, are those in regard to "draining," which are maintained by a certain class of "scientific operators" as correct teaching. They say in substance, as there is a great deal of wet and marshy, boggy land, that requires thorough draining, before it can be well cultivated, so there is no soil, however deep it may be, but that it will pay well to "drain," if it will pay to cultivate at all. I hesitate not to say that a greater piece of "radicalism" or untruth, was never put forth, than to assert that a piece of naturally dry soil required draining in order to make it right for cultivation.

A writer in the *New York Tribune*, in a word of advice to farmers, among other things says:—"But there is no land in the old States worth plowing, which will not pay for draining and subsoiling. Dry soils need these meliorations quite as much as wet, and will as richly reward them. There is no tolerably good land in this State, so dry that it might not, by underdraining and deep plowing, have been made to stand the drought of the past summer, without rolling a single blade of corn. Proper draining moistens land when too dry, as much as it dries it when too wet. These facts are well known to the decently instructed farmer, and we need not dwell on them," &c.

Now this writer seems to carry the idea that draining and subsoiling must always go together, in order to ensure success. And I admit that in all wet, heavy, swampy lands, that need thorough draining, subsoiling will be a valuable addition. But then that does not prove that all ordinary dry soils need draining, nor anything of the kind, for they do not want it. All soils capable of cultivation may or will be improved by deep plowing and subsoiling; lands that are naturally moist and retentive, may need a subsoiling every year; while those which are more open, one thorough subsoiling may answer for three or four years. In fact, on many soils that are quite retentive of moisture, all the *draining* that will be necessary can be done by deep plowing and thorough subsoiling, say to the depth of eighteen or twenty inches. This operation opens the pores of the soil, and drains down the surface water that may accumulate by heavy rains, and also the retentive water that lies near the surface, of course leaving the soil in a pliable state for cultivation. Then in case of dry weather, moisture will be drawn up from the subsoil by attraction from the atmosphere. So if the surface soil is well pulverized, this soil may be kept tolerably moist during a dry spell. Of course, on all wet, boggy, marshy swales or soils, thorough draining is necessary before any other improvement can follow. There are many other soils, which on first appearance would look as though draining was not necessary. But on a closer examination of the soil and subsoil, and the grass grown upon the surface, draining would be found to pay well.

As to the material used for draining, much will depend on circumstances, situation, &c. &c. I am inclined to think that the tile now manufactured in many places for this purpose, is the cheapest and best material that can be used, even if stone are close at hand. Draining by tile is the most sure and certain process, in the long run, and the cheapest. But then this writer says, "proper draining moistens land when too dry, as much as it dries it when too wet," &c. Now I confess, for one, that I do not understand this doctrine, although I have given considerable attention to soil cultivation for the past twenty years. As I understand it, draining proper means conducting off the surplus water and moisture gathered from the soil, and discharging it into a main ditch or reservoir. Now I cannot see why in dry weather even that the tile will not continue to gather the moisture and conduct it off; and in that case, a dry soil drained, instead of becoming more moist in dry weather, must be exhausted of moisture. But I can readily see, as I have explained, how by deep plowing and subsoiling, and keeping the surface soil mellow and stirred often, that a tolerably moist or dry soil may be relieved of surface water in wet weather, and made more moist in dry weather. As to having soils so thoroughly plowed, subsoiled and drained that a single blade of corn will not "roll up" in a great drought, I have heard spoken of before, but I had much rather see it, than hear it told of, for my satisfaction. On many soils of a deep loam that are highly cultivated, a crop of corn might be carried through a great drought, like the one just past, without the blades rolling much. But on a dry gravel or sandy soil this would be impossible, and all the subsoiling and draining could not prevent corn blades from rolling. It has been a long observation of mine, and of others, that during a drought, when corn blades rolled during the day and unrolled during the night, the crop did not suffer much. But when the blades rolled thoroughly through the day, and did not unroll at all during the night, then the crop suffered for want of moisture. The Indian corn crop will stand a great drought, when the soil is well cultivated, many times beyond our calculation. But then this bidding defiance to rain and dry weather, and saying as good crops can be raised by *scientific culture*, without these blessings, as with, is going beyond limit. And after all the care and attention that the farmer may bestow on his crops by well-directed labor, he may have his expectations cut off by drought, storm or flood. Yet good cultivation will generally succeed, when well followed out, and it is only the extremes and exceptions to this rule that will fail to ensure generally good crops.

Yours truly, L. DURAND.

Derby, Ct., 1855.

STARCH, SUGAR, CARBON.—Twelve pounds of starch contain five pounds of carbon. A person of sedentary habits throws off about five ounces of carbon in twenty-four hours—a hard laborer twelve. To supply this he must eat sixteen ounces of starch and sugar. If he take it in the form of wheat bread, it will require one pound and three-fourths—if in the form of potatoes, seven and a half pounds, to supply what is lost by breathing alone. A horse, or cow, will give off from four to six pounds of carbon daily. The amount of food, to supply this loss, will be proportionately greater.

For the New England Farmer.

FARM WAGES AND LABOR.

Mr. Editor: — An article appeared in the *Farmer* of August 25th, over the signature of "E. N.," the writer of which seems to think wages for farm labor are not high enough yet, compared with other branches of labor. He does not mention the fact that before the mechanic can command $1,50 or $2 per diem, he must give some time in learning his trade, and then invest some capital in a set of mechanic's tools. Here wages on the farm range from $12 to $18 per month, for the term of six or eight months, or $150 to $175 by the year. Now it is not difficult to show that the laborer receives a greater net profit at the end of the year, than his employer, with from two to four thousand dollars invested in his farm. The farmer who clears from one to three hundred dollars annually, we think doing well, even if he is obliged to expend that sum on his buildings or fences, that they may not be running down.

How is it with the laborer who clears from $125 to $150 per year? "Figures don't lie;" therefore by adding in six per cent., he will in a few years lay by a sum sufficient to purchase a small farm, and thus have an interest in the soil he cultivates—a situation to be preferred to any promotion he might hope for, from any manufacturing company. This writer says, "There is so much exposure in farming, that young men who commence at the age of twenty-one without any property, and with the intention of getting a living by working on a farm, and who have an average fortune, usually end a short life as poor as they began it." A most awful picture, truly. That the most healthy occupation that God ever designed for man should shorten human life, is a new idea. Any young man who begins for himself at the age of twenty-one, with habits of industry and economy—two words the import of which is not instilled in the minds of our young men, as in the days of Dr. Franklin—can for $12 per month through the year, clear one hundred dollars; this sum received annually, and prudently managed, will at the age of forty make him as independent as was Stephen Girard, with his millions.

Maidstown, Vt., Aug. 28, 1855. W.

ASHES AND PLASTER.

A subscriber says:—"I wish to know if there is anything in the nature of ashes or plaster, that causes them to neutralize each other, when used together? My neighbor says, he knows it is so, and that I shall lose my money and my labor."

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Remarks.—Plaster is sulphate of lime. In the state of ground plaster, as generally used in this country, it consists of 28 lbs. of lime to 40 lbs. of sulphuric acid, and 18 lbs. of water.

Ashes are made up largely of silicates, mostly insoluble. They contain also carbonates of the alkalis, potash and soda, and of the alkaline earths, lime and magnesia, together with a little of various phosphates, a little sulphate of lime (plaster), a little soluble silica, and small portions of free alkali.

In answer to the above question, science would say: "No; the two cannot neutralize each other; no decomposition will be effected by mingling them in the soil; and so far as the free alkali of the ashes might tend to dissipate the ammonia of the soil, the plaster would counteract that tendency, and so the effect of mixing them would be beneficial rather than otherwise."

If we propound the same question to practical farmers, we get contradictory answers. One says he gets good results from both ashes and plaster applied separately, but not equally good, if they are mixed. Another says, it is less labor to apply them together, and the results are quite as good. Both *know* that they are right; and the scientific man would be apt to think he *knows* that the last only is right. We incline strongly to the opinion that ashes and plaster may be used *together* with no injury to each other, but with perhaps some little advantage over their *separate* use; though it must be confessed that there are strong testimonies to the contrary coming from practical farmers.

Let the experiment be thoroughly tried. On part of a field apply the ashes and plaster in the hill before planting. On another part, the soil being the same and similarly treated in other respects, let the ashes be applied in the hill at planting, and the plaster be applied after the first hoeing. If the ground were peculiarly warm, it might be well to try a third portion by sowing the ashes broadcast, and applying the plaster to the hill. Our expectation would be that little or no difference would appear, except that where the ashes were sown broadcast, the crop might not be quite as forward early in the season, but later would quite equal the other.

We are the farthest possible from wishing that the practical farmer should bow to the opinions of any one. If agricultural writers and agricultural workers will maintain a little wholesome watchfulness and a great deal of kindly respect for each other, the best interests of agriculture will be advanced.—*Nash's Farmer.*

For the New England Farmer.

FARMERS' DISADVANTAGES.

Mr. Brown:—I do not wish to intrude upon the columns of your valuable journal; however, as you are always willing to hear from the young and inexperienced, and as you are frequently describing the peculiar advantages of the farmer, and the means which he possesses for enjoyment, I think that a few words upon the disadvantages of a farmer's life would not come amiss. I refer to the obstacles against which a poor "farm boy" has to contend, in acquiring an education. The farmer in comfortable circumstances can give his sons a liberal education. But the boy who is "put out," or who works by the month, is obliged to labor fourteen or sixteen hours per diem, during the summer, and he can have but little time or disposition to acquire information. Moreover, farming has this disadvantage, it is a very unsociable employment, and when the boy has any leisure, he very naturally devotes it to finding company with which he can associate.

And when winter, the time for study, comes, the case is not much better. If he does chores for his board, he is obliged to rise very early, and labor besides until school-time, and frequently later, and getting late to school is a very discouraging thing for an ambitious boy, and the transition from vigorous exercise in the keen winter atmosphere to the uncomfortable, poorly-ventilated school-house, is so sudden, that his head aches, a feeling of lassitude creeps over him, and he is unable to study; therefore, he is called inattentive, a dull scholar, gets discouraged, and after passing through the three winter months, he goes to work, and before winter commences again, he has forgot nearly all that he learned the previous season. Continuing thus from year to year, the boy becomes a man used to hard labor, but possessing little information, and as is usually the case, lives and dies a common laborer.

Now, I will admit, that the pursuit of agriculture is the most honorable and useful employment in which a person can engage, and every nation which has encouraged the cultivation of the soil, and the employment of independent labor, has increased in wealth and strength, while the use of ignorant and slave labor is most pernicious in its effects upon the prosperity of a nation. Yet I think that the opportunities which agriculture affords for the acquirement of an education are rather of a negative order.

South Hadley, July, 1855. E. N.

REMARKS.—There are difficulties to be overcome by the "farmer boy," in the pursuit of knowledge, we confess, but that they are of a sterner character than those the mechanic or merchant's boy must contend with, is not clear. To a determined mind, the common difficulties of life operate only as a kind of spur, while the timid and doubting yield to them, and thus lose the prize to which they aspired. Upward, and Onward, must be the words for young men. *Make* circumstances yield to your strong will, and bend or break the hindrances which obstruct your path. What man *has* done, you can do. Never doubt. Keep a trusting, resolute heart and go on your way—you will succeed.

MANURE.

NICOLAI, in his work entitled "Principles for the Regulation of Estates," asserts that—

One ox or cow yields ten wagon loads, (for two horses,) of manure;

One young ox or cow, five loads;

One horse, fed or stabled, fifteen loads;

One horse, turned out to grass, seven and a half loads;

One sheep, one load.

He also observes that one-half the quantity of manure obtained from the horned beasts, may be derived from the pigs, poultry and farm-yard, provided that proper care be taken to keep the former well provided with straw and other litter capable of being resolved into manure. Twenty of these loads he supposes amply sufficient for an acre—that is, of the cattle; twenty-five loads of the mixed manure obtained from the farm-yard, and fifteen loads from the sheep-cote or yard.

KARLE estimates the quantity of manure furnished by sixty-five cows, turned out to pasture all day, and brought up at night to the cow-house, during summer, sufficient to manure one hundred acres.

PFAFFER asserts that one cow, stable-fed, will produce one hundred quintals of manure; and an ox, put up to fatten, eighty quintals.

READING IN THE CARS.

Railroads have wonderfully changed the business and ways of the world. Cities were once places of residence, and merchants thought they must domiciliate within a moment's call of their ships and banks and counting-rooms, or trade would languish and die. But steam and iron roads have proved that ships will sail and banks discount, if the merchant sleeps in the country, away from the din of rattling wheels, and the mephitic vapors of gorged gutters and sewers. But it is not the merchant alone who has forsaken the city; mechanics, artists lawyers, clergymen and editors, not only find the country congenial, but less expensive than the city, as a place of residence, including the cost of transportation over the road twice or more each day.

But to spend twenty minutes or an hour, morning and evening, in the cars, and to take a choice of conversing amid the screams of the steam whistle, and the clattering of the wheels, or to be left alone to one's thoughts, presented a dilemma, the horns of which were either of them too sharp for Yankee impatience to hang upon. So the merchant pulled out his "price current," and studied that, the lawyer his "brief," and clinched the points of that, the clergyman his "suggestions for every day in the year," and the editor his "exchanges," and thus made all the time count as so much *devoted to business*. Now, the newsboy comes with the morning and evening papers, and follows on with "Harper," "Putnam," and "The Lamplighter," as regularly as the trips of the cars themselves. We are determined not to be left alone—it is pleasanter to read than *to think*—so we hurry on, leaving the "inward digestion" for a "more convenient season," and the mind to become lazy, laggish and unprofitable.

Reading in the cars, however, will have another, and most painful influence upon the *physical* system. We had several times been cautioned against reading in the cars, but a bag full of "exchanges" has proved too strong a temptation to resist, and for several years it has been our practice to read from two or three to twenty or thirty papers while passing over a distance of twenty miles. But during the spring and early part of summer we invariably returned home with a painful sensation in and about the eyes, though feeling nothing of it on taking the cars at Boston. This pain at length became permanent, sometimes violent, and so great as to prevent us from reading, and generally from writing, though the sight was not impaired. Upon consultation with an oculist, he stated that the optic nerve had become weakened by overtasking it, and inquired if we were not in the habit of *reading in the cars!* Under an interdiction from reading and writing, the eyes have rapidly improved, and we can now read half an hour at a sitting, under favorable circumstances.

The most unpleasant and painful sensations of our experience have been after retiring at night. The whole eye would then seem to be oscillating, and accompanied by severe pain at each motion.

Since being thus deprived of the use of the eyes, several persons have stated to us a similar experience in themselves, and arising from the same cause. We are also informed that an expressman, who had for many years been passing back and forth between Boston and one of the neighboring towns, and who was in the constant habit of reading in the cars, has become totally blind, and the cause is imputed to that fact. In reading, the eye not only takes in the word, but *each letter* of the word, and their formation upon the retina of the eye must be exceedingly complicated and difficult under such conflicting motions as are caused by a rapidly-moving train of cars. Perhaps the communication of these facts may save a good pair of eyes.

DAYS WITHOUT NIGHTS.

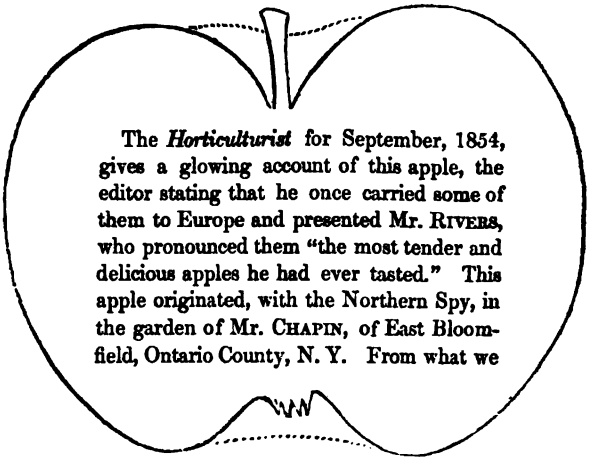
There is nothing that strikes a stranger more forcibly when he visits Sweden at the season of the year when the days are longest, than the absence of the night. We arrived at Stockholm from Gottenburg, 400 miles distant, in the morning, and in the afternoon went to see some friends—had not taken note of time—and returned about midnight; it was as light as it is here half an hour before sundown. You could see distinctly. But all was quiet in the street. It seemed as if the inhabitants were gone away, or were dead. No signs of life—stores closed.

The sun goes down at Stockholm a little before ten o'clock. There is great illumination all night, as the sun passes round the earth towards the north pole, the refraction of its rays is such that you may see to read at midnight. Dr. Baird read a letter in the forest near Stockholm at midnight, without artificial light. There is a mountain at the Bothnia, where, on the 21st of June the sun does not go down at all. Travellers go there to see it. A steamboat goes up from Stockholm for the purpose of carrying those who are curious to witness the phenomenon. It occurs only one night. The sun goes down to the horizon, you can see the whole face of it, and in five minutes it begins to rise.

Birds and animals take their accustomed rest at the usual hours. The hens take to the trees about 7 o'clock, P. M., and stay there until the sun is well up in the morning, and the people get into the habit of rising late, too.

A Martial Buffoon.—There is often a buffoon attached to each Russian company, who amuses his comrades by his jests and antics, and is generally a great favorite. On one occasion in the Caucasus, when the troops were driven back by the Circassians, the buffoon was wounded and left behind. A favorite jest of his had been to crow like a cock; and as he lay on the ground he thought of the only way to save himself, and crowed. This had such an effect on his comrades that they rallied, charged again and saved him.

OUTLINE OF THE MELON APPLE.



The *Horticulturist* for September, 1854, gives a glowing account of this apple, the editor stating that he once carried some of them to Europe and presented Mr. Rivers, who pronounced them "the most tender and delicious apples he had ever tasted." This apple originated, with the Northern Spy, in the garden of Mr. Chapin, of East Bloomfield, Ontario County, N. Y. From what we can learn of it, we judge that it is too tender to bear long carriage or much handling, and the tree scarcely vigorous enough in its growth to be recommended for *profitable* culture, but is worthy a place in every orchard or garden, for family use. The editor of the *Prairie Farmer* thinks it excels the Northern Spy, in taste, but says nothing of its qualities as a market fruit.

Inquiry—What do they do with the Dirt?—"E. E." contributes the following:—A farmer called the other day. My little niece wanted to show him the kittens, and he told her he had a plenty at home, and went on to tell an incident relating to the necessity of keeping them, which was briefly this: A ground squirrel, ***sciurus striatus***, or "chipmuck," as he called it, had been making depredations upon his corn, when one day he discovered, a few feet from his corn-barn, a squirrel's hole, which he dug out about four feet deep, and came to corn, which he threw out to the fowls what he judged to be half a bushel, and then gathered up a half-bushel more, heaped up. The mystery was, how Sir Hackee could make an excavation to contain a bushel or corn, and leave no traces of the dirt. Some suggest that they eat it; others again that they carry it to a great distance, and scatter it here and there and everywhere. Can the *Country Gentleman*, or any of his family, give any satisfactory explanation of it.—*Country Gentleman.*

Agricultural College in Michigan.—The land upon which the college is to be erected has been purchased—lying about three miles from the Capitol at Lansing—at $15 per acre. The land is of various quality, and is said to be well adapted to the purposes of the institution, comprising about 600 acres.

U. S. AGRICULTURAL FAIR.

Everything is going on to render this Exhibition the grandest and most attractive that has ever taken place in this country. It will come after all the other State and County Fairs have taken place, so that the stock, implements, &c., that have been exhibited at these, may be brought here. The *Journal* says, in regard to this show, the ground to be occupied in October next, for the grand exhibition by the United States Agricultural Society in this city, is on the city lands at the South End, bordering on Harrison Avenue on the north, Brookline Street on the east, and on the south and west by the water, covering an area of some fifty acres. About one hundred horse-carts and between four and five hundred laborers are actively employed in levelling this extensive lot, and a host of carpenters are engaged in preparing the wood wook for fencing, seats, &c.

The *Ohio Farmer* says:—

"Well, we are to have another National Stock Fair. We are glad of it. Boston has taken hold of it in earnest. Mr. Wilder writes us:—'It may be well for you to know that the subscription of $20-000 I have raised in about *six hours*, no one person putting down less than $500. The occasion will be one of great interest, and no pains will be spared to make it worthy of the city in which it is held, and of the nation which the Society represents.' That's the talk, and the performance will be equal to the promise. Col. Wilder never does anything by halves, but with the munificence of an emperor. Now let the Ohians, Kentuckians, Illinoans and Indianians, prepare their best cattle for this National Show, and let us have a grand Jubilee. All the State Fairs will be over, and the gorgeous Indian summer weather will be just the time to visit New England."

AGRICULTURE THE PROPER CALLING.—A most sensible writer in the *Country Gentleman* says:—

All other pursuits are proper in their places, but when carried to too great an extent, produce poverty, distress, and misery. The more agriculture is pursued, the greater is the benefit to the human race. Here is a field for the philanthropist. Establish agriculture upon a good basis—the basis of intelligence—and you will do much to close what are now flood-gates of misery to society. Our city poor, our merchant clerks, our emigrant poor, and our country poor, all call for relief; and here alone can it be obtained,—in intelligent husbandry. Agriculture is the great moving power of human existence, and as the human family increases, we must cling the closer to our mother earth for support. Thus the mandate "to earn our bread by the sweat of our brow," becomes from our condition a matter of necessity; but in it we see the goodness and wisdom of our great law-giver, for "necessity is the mother of contrivance," we thus increase in intelligence, and intelligence promotes morality and happiness. In the dim but yet brightening future, we behold, instead of cities overcrowded with human life and ragged pauperism stalking abroad, the whole face of nature one great Eden,—the sons of Adam all inheriting his estate. Agriculture exerts an influence to equalize the distribution of wealth, which no law, nor theory, nor any other pursuit, has or ever can accomplish.

HOW TO PREVENT AND CURE KICKING COWS.

An "Old Farmer" writes thus to "*Life Illustrated:*"

In most cases the habit of kicking is contracted during the first month after the cow has had her first calf. If, as is often the case with well-fed heifers, the udder is a little feverish at the time, it often becomes so sore that it is impossible for the poor creature to stand still while the necessary milking is being done. Following the instinct of nature, she kicks; and finding she is thus for the moment freed from pain, continues to do it till the *anger of the milker* is aroused, and then a bad matter is made much worse.

It is better in the first place to tie the heifer by the head, then set your left shoulder gently but firmly against her, just back of her right shoulder, grasp firmly her right fore leg below the knee, turning her foot up backward till it touches the leg, then slip on over the knee a strap, or hoop, or cord that will confine it fast in that position. While standing on three legs she will find it difficult to kick so as to hurt you. Now take a convenient sized cloth, and wet and wash the udder thoroughly with tepid or cold water, after which milk her as carefully and tenderly as possible, using at the same time such gentle and soothing language as is calculated to show her that you do not wish to hurt her—but let her struggles be ever so violent or provoking, mind you keep control of your own temper. An outbreak on your part will as certainly be productive of a bad effect upon the cow, as an echo will answer your own voice, or as your image will be reflected in a mirror. Kindness, combined with the perfect control you have over her in this situation, I considcr much the best way of breaking them; and after a few times she will lift her foot to be tied as readily as a horse will be shod. Continue to milk her in this way until the soreness is gone, and she will find it a gratification to be milked, will often meet you as she sees you coming with the pail, and you will ever after find it easier to get along with her should her teats by chance get sore afterward.

FLOUR IN NEW HAMPSHIRE.—For several years past the Eastern States have depended almost entirely upon the West for their flour; but this year they undertook to raise their own, and with very gratifying success. An old farmer, who has recently travelled extensively in Sullivan and Grafton counties, assures us that he never saw such crops of wheat in New Hampshire. We hear similar reports from other quarters, and have seen some beautiful fields ourselves. It may be thought, perhaps, that all the wheat New Hampshire can raise will not affect the market price of flour; but when it is considered that for five years past it has produced next to none, while this year it will supply half its population, the effect must be felt; and if the other New England States have done as well, the aggregate influence upon prices must be quite perceptible. Flour must come down, as soon as the new crop is fully available.—*Manchester Democrat.*

For the New England Farmer.

CHEMISTRY—No. 2.

TRANSFORMATION.

As every species of growth and decay consists in the passage of water from one state to another, it may not be amiss to glance at some of these changes, as they present themselves to the student of nature. "All organized substances are composed mainly of but four elements, viz., carbon, hydrogen, oxygen and nitrogen."—*Youmans.* These, acted upon by different agents, and under different circumstances, go to make up, in the main, the sum total of the animal and vegetable world.

But let us look at vegetable growth. Every perfect seed possesses in itself the rudiments of a new plant. "In some varieties it is so complete that the microscope reveals its structure, root, stem and leaves."—*Youmans.*

Encased in its coating, it awaits the action of external agents, viz., warmth, air and moisture. When exposed to these, it awakes to life, absorbs water and oxygen, swells in bulk, chemical action begins, carbonic acid is given off, its temperature rises, and a new substance, (a kind of ferment,) is formed, which possesses the power of changing starch into sugar or gum, thus supplying the necessities of the young plant. As soon as the germ appears, it first takes root, and then the blade appears, and it begins to provide for itself. Food in a liquid form is taken up by the roots, and is, by capillary attraction, carried to the extreme of every branch and leaf, there undergoing the change necessary to fit it for food, for the growing plant, by being mixed with carbonic acid absorbed from the air. And let it ever be remembered that the LEAF *is the seat of this important change.* The leaf is an organ of inhalation, digestion and respiration. Hales found that a sunflower, weighing three pounds, exhaled thirty ounces of water in a day. The pores are situated upon the under side of the leaf, and are valve-like in their actions, opening when the supply of water is abundant, and closing when it is small. "They vary in size, on different kinds; upon the apple leaf it is said there are 24,000 to the square inch."—*Gray.* Oxygen is returned to the air by plants, while they retain the carbon, thus purifying the air; for men and animals take oxygen from the air, and return carbonic acid, while plants take carbonic acid and return oxygen; thus acting in unison, keeping the air in nearly the same state. "An adult man exhales about 140 gallons of this gas per day."—*Davy.*

The wind, too, plays, its part in this grand drama of nature, by keeping the air in never-ceasing motion. But the most wonderful part of all this complicated machinery, is the sun. He is the engine, so to speak, that moves the whole. Nothing could come to maturity, without the light and heat of the king of day. How truly wonderful, that a few gases mingled with a very small proportion of mineral elements, should compose all the varied form of life, vegetable and animal, that we see in our ever-changing world. But so it is, and these changes are, to my mind at least, a very appropriate theme of study. S. TENNEY.

West Poland, Me., Aug., 1855.

GREAT YIELD OF RYE.—The Salem *Observer* has a specimen of rye raised this season upon the town farm of South Danvers, on a piece of land of ordinary gravelly soil, measuring seven acres and one hundred and twenty rods, which yielded two hundred and twenty-nine and a half bushels. It weighed fifty-six pounds to the bushel. One hundred and fifty bushels of it were sold for $1,50 a bushel.

For the New England Farmer.

LIME AND CANKER WORMS.

MR. EDITOR:—As no answer has appeared in your paper, to the inquiry of "Verdant Farmer," in relation to a remedy for the grubs, which are destroying whole fields of corn, &c., in his vicinity, I take the liberty of requesting you to insert, for the benefit of your numerous readers, the following article taken from the *Evening Transcript*, giving an account of a remedy which has been very successful in destroying the canker worm, and which will be found equally efficacious for the destruction of grubs and worms of all kinds.

Most respectfully yours, &c.

Charlestown, Aug. 13*th*, 1855. G. J. F.

MURIATE OF LIME AND CANKER WORMS.—*Mr. Editor:*—The ravages of the canker worm for the last few years have been to me a subject of deep interest and inquiry, and I have devised many schemes for the destruction of this rapidly increasing pest. While a resident of Cambridge, the experiments above alluded to were tried; but my removal to Lexington put a stop for the time being to all further investigations, and I cannot judge how far either or any of them would have succeeded. The canker worms had not as then reached Lexington, or that part of it in which I resided, and I really hoped, that, as far as I was concerned, I had seen the last of them; but judge my horror, Mr. Editor, when visiting my *next* neighbor's garden, to find his apple trees, which by the way had been purchased that spring from a nursery in Cambridge, *covered* with my old enemies. They were even now going into their winter quarters, preparatory to a vigorous campaign in the coming spring.

It so happened that during that season I had been making some experiments with muriate of lime, which my most esteemed friend, Mr. James Gould, the manufacturer, had recommended to my notice as a fertilizer. As a manure, the muriate exceeded my most sanguine expectations; and the thought struck me while thus using it, why will it not answer the double purpose of fertilizing the ground and destroying the canker worms? By my direction therefore, the ground, to the extent of the branches under the trees in question, was *well* covered with this muriate of lime; late in the fall it was dug thoroughly in. The next season, not a canker worm was to be found. The experiment had fully succeeded. Now is the time, Mr. Editor, for your readers to try the thing for themselves. I do not ask them to put faith in my experiment alone, for I am happy to add, that the same thing has been since tried, both in England and in this country, and in every case with perfect success.

The canker worms have now mostly gone into the ground, and *now*, therefore, is the time to destroy them. The experiment is well worth trying, for as a fertilizer alone, the muriate will pay three times its cost. I shall give my plum trees the same dose, and have no doubt but there too it will do its work.

Yours truly, WILLIAM PLUMER.

Lexington, June 21, 1855.

For the New England Farmer.

A NEW BUILDING MATERIAL.

We have just been shown a new building material, which promises, from its exceeding cheapness, beauty and apparent durability, to supplant entirely the use of stone, brick or wood.

This article is the invention of Mr. Ambrose Foster, of Portland, Wis., and by him patented. It may properly be termed *artificial sand-stone*, being composed of eleven parts common sand to one part dry slaked lime, which being thoroughly mingled together, without the use of water, and subjected to a pressure of a hundred tons to the square foot (a pressure readily obtained by machinery) produces a beautiful stone, with polished surfaces, which exposure to the atmosphere hardens, and soon it becomes equal to granite for strength and solidity, only becoming harder and more stone-like by the action of the weather. These blocks may be made of any desired size and shape, from that of the common brick to a foot square, or may be formed triangular for corners of buildings, or curved for chimneys and other purposes. Each block is pressed with a space for dead air, thereby rendering all walls made by them, both dry and warm. No lathing or plastering is needed, the walls being perfectly smooth on either side, upon which paint or paper may be laid, and present a better appearance than when laid upon plastering.

The press in which this material is to be manufactured, will be so small and light that it may readily be taken to any spot where it is desired to erect a building—bringing the sand from the nearest bank, and the lime from the nearest kiln, and making any quantity of blocks desired, thus saving the expense of handling and carting.

This article has been subjected to the severest tests and examinations by the most thorough, scientific and practical men, chemists and architects of New York city, and elsewhere, and pronounced by them to be a perfectly safe and most valuable substitute for stone and brick.

Of the *cheapness* of the material, none can doubt when they remember how abundant sand is everywhere, and lime almost equally so. Of its durability and capability of resisting all external influences, there seems no doubt; this, however, will be further determined by unerring experiments; which if successful, will render it one of the greatest inventions of the age.

Any information in regard to this article can be had from Messrs. J. H. Buck & Co., of Lebanon, N. H., who are the manufacturers of the presses for making it; which we understand they will soon be in readiness to send to any part of the United States. They are also agents for the sale of patent rights for the States of Maine, New Hampshire, Vermont and Massachusetts.

We can hardly conceive of a better boon to mankind, in a temporal view, than the discovery of a very cheap and inexhaustible material for constructing their buildings, their houses, their homes; the possession of which gives to life its chiefest pleasure and sweetest enjoyment. *A home for all*—that is a home in its most thrilling acceptation, and vice and crime will have few devotees. E. I.

Lebanon, N. H., 1855.

Remarks.—Please send us a specimen of the manufactured material.

IMPROVEMENTS.

The investment of capital in permanent improvements, is much more common in England than in this country. In the *Mark-Lane Express* of April 10th, there is a report of a speech by Mr. Mechi of Tiptree Hall, in which that gentleman is represented to have said, that he had, on a farm of one hundred and seventy acres, nearly or quite two miles of iron pipe, for the distribution of liquid manures. The apparatus for applying this manure, including a steam-engine, tanks, iron pipes and gutta percha hose, cost him about twenty-one dollars per acre. This investment he considers a profitable one—yielding him larger returns than the same amount of capital invested in public funds. He considers the application of liquid manure to lands of all description, much more economical than that of the solid excrements of animals. By this process of manurial irrigation, the excreta of the animals produced to-day, were conveyed into the tanks to-morrow, conveyed immediately to the land, and the soil saturated with it to the depth required; whereas, when the solid matters were applied, the cost of transportation, spreading, etc., not only proved a matter of considerable expense, but there was also much time lost, oftentimes, in waiting for rain to wash the fertilizing particles into the soil, and then when it came, the quantity was not sufficient to carry them to the required depth. The actual cost of applying the urine and other liquid matters made in his establishments—an equal distribution over all his fields being secured—did not exceed three cents per ton! His estimate of the actual augmentation of produce, in consequence of this irrigating process, is that it amounts to more than double the outlay—or about *one hundred per cent.* Now why is it that our farmers who are by no means deficient in enterprise in other matters, do not imitate their English friends in this great matter? Why do they, in view of such facts and examples as these set before them in the speech of Mr. Mechi, still blindly persist in suffering the annual waste of the most valuable portions of their manure, and this, too, while they are actually stunning us with their dolorous and ceaseless complaints against short crops and exhausted soils. Farmers should reflect upon this subject. It is one of the very first importance, and we trust will no longer be treated with neglect.

A Fact in Manuring.—A person carrying some orange trees from China to the Prince of Wales island, when they had many hundred fruit on them, expected a good crop the next year, but was utterly disappointed: they produced but few. A Chinese, settled in the island, told him if he would have his trees bear, he must treat them as they were accustomed to in China; and he described the following process for providing manure—"A cistern, so lined and covered as to be air-tight, is half-filled with animal matter, and to prevent bursting from the generation of air, a valve is fixed, which gives way with some difficulty, and lets no more gas escape than is necessary: the longer the manure is kept the better, till four years, when it is in perfection; it is taken out in the consistence nearly of jelly, and a small portion buried at the root of every orange tree—the result being an uncommonly great yield." A person hearing of the above fact, and wishing to abridge the term of the preparation, thought that boiling animals to a jelly might have a similar if not so strong an effect. Accordingly, he boiled several puppies, and applied the jelly to the roots of a sterile fig-tree; the benefit was very great—the tree from that time for several years bearing in profusion. Hints of this kind are well worth preserving, for though an English farmer may neither have the apparatus of the Chinese, nor puppies enough to become an object of attention, yet the reduction of manure to a mucilaginous state ought perhaps to be carried further than it is.

CHEMICAL COMBINATIONS.

Every farmer should know enough of chemistry, to tell the combination that forms the different vegetable creations. Every plant and vegetable is formed of the same substances, only united in different proportions. All, too, are formed of only *fifteen* elements. The names of these elements we have often given; but as a valued subscriber has asked us, "What is the best way for a farmer of limited means to acquire a knowledge of Agricultural chemistry?" we will repeat what we have often said, by recurring to the first principles of chemistry; and if our "subscriber," of Sullivan, will learn this lesson fully, he will be prepared to be his own teacher afterward, by experimental training.

The *fifteen* simple elements are oxygen, hydrogen, nitrogen, chlorine, carbon, potash, soda, lime, alumina, magesia, iron, manganese, silex, sulphur, and phosphorus.

Some of these names may be better understood by calling them differently. Thus, to call chlorine, muriatic acid; carbon, coal, or the part of a thing that will burn; alumina, clay; and silex, sand—they will, perhaps, be better understood. The other substances are probably understood by their chemical names.

Now, by different combinations of these substances, are all other substances formed. Thus, oxygen and nitrogen form the air we breathe; nitrogen and hydrogen combined form ammonia, or hartshorn; chlorine and ammonia combined form sal ammoniac; oxygen and sulphur form sulphuric acid; sulphuric acid and soda form glauber salts; sulphuric acid and magnesia combined form epsom salts; sulphuric acid and alumina, or clay, form alum; sulphuric acid and iron combined form green vitriol; sulphuric acid and zinc combined form white vitriol; sulphuric acid and lime combined form "plaster of Paris;" oxygen and phosphorus combined form phosphoric acid; phosphoric acid and lime combined form bones, or phosphate of lime; oxygen and carbon combined form carbonic acid, (so fatal in rooms where burning coals are kept;) carbonic acid and lime united form chalk, and limestone, called carbonate of lime; potash and aquafortis combined form saltpetre; soda and chlorine combined form common salt. Potash, soda and ammonia are called alkalis, as they possess a sharp, burning taste. Potash is derived from the ashes of land vegetables; soda from sea plants, and ammonia from animal substances.

Now, by these changes and combinations, all plants and vegetables, as well as animals, are formed. Thus, a stick of green wood is formed by the combination of oxygen and hydrogen; the sap, or water, carbon, or coal; and the ashes, or earthly matter, are drawn from the earth. By burning it, the water is changed back into the two gases, and thrown off into the atmosphere. You have the coal, or carbon left. This, though apparently dry, still contains water in the shape of oxygen and hydrogen disunited, and in a solid dry form. Burn the carbon, or coal, and the balance of the oxygen and hydrogen is driven off, and the remains are earth. Analyse these ashes, and we shall find all of the fifteen elements, except the gasses, which have escaped into the atmosphere. To ascertain the amount of gas in a stick of wood, weigh the stick, then char it in a pit, and weigh again; then reduce it to ashes, and weigh then. In the first operation, you get the weight of the gases united in the sap, which are thrown off; in the second, the weight of the gases uncombined, existing in a solid state. So in lime, which, united with carbonic acid, forms limestone. A bushel of limestone weighs 142 lbs.; burn it, and it weighs only 75 lbs., showing that 97 lbs. of carbonic acid and water have been thrown off; add 20 lbs. of water to it, and it will crumble into a *dry* powder, weighing 93 lbs., showing that the change of 20 lbs of water into solid, dry substances, has been effected with a loss of only 2 lbs.

In analyzing the ashes of wood, we find what earth is used in forming the plant, or tree. The apple tree shows a large proportion of alkali and lime; the peach, iron; potatoes, potash; wheat, phosphate of lime; clover, lime; and the cranberry, of potash.

When the farmer has got thus far, perfectly, he knows what composes his crops, and that his apple trees need ashes; the peach, iron scales; potatoes, leached ashes; wheat, bone meal; and clover, lime. When he has completely learned this lesson, we will, perhaps, give him another.—*Ohio Farmer.*

BREAKING STEERS.

In breaking a pair of steers, first confine one of them in a yard 14 to 18 feet square, high and strong enough to hold him; then enter the pen with a switch three or four feet long, and with your pockets filled, not "with rocks," but with ears of corn, apples, carrots, &c. Tame the steer by feeding him, and convince him that you mean no harm. Having done this, I introduce my business to him, by getting him into a corner with as much gentleness as possible. Here stroke him and pet him in various ways, feeding him with a nubbin or two of corn.

Of course he must learn to *haw*,—so I strike him gently on the *off ear* with my switch, and after that with my back towards him, twist his tail, (a little twisting is better than more;) I conduct him again to his corner and order him to *who*—which from the *force of circumstances* he is compelled to do. Thus I teach him to *stand* as well as *haw*, and in a short time he will obey the command in any part of the pen.

After sufficient practice in the pen, I let him out into a large yard, and then drive him with equal success. Here he becomes well accustomed to the *Who, Haw, Gee,* processes. But if he does not prove sufficiently tractable I return him again to the small yard for further discipline. The other steer I serve in the same way.

Preparatory to yoking, I drive them both into the pen and exercise them together, making one stand while the other comes up as if coming under the yoke, the whip being held out to represent the yoke. Then taking the bows out of the yoke, I lay it on their necks, taking care not to frighten them in the operation, then put in the bows, and I have a yoke of oxen! But previous to yoking, drive them side by side in the large yard. While driving in the large yard either single or double, use a whip 8 or 10 feet long, and when driving both, put on a lash two feet long.

CAUTIONS.—Keep cool! use caution for yourself and for your cattle. If they *kick* you, look out next time, but don't return the compliment, for you are not to consider yourself on equal terms with them. A little patting and rubbing is better. If you have not Christianity enough to return good for evil, don't undertake to break steers. I had rather break a pair of wild steers for $5 than a pair that has been injudiciously handled for $10.

Be very careful not to overload them, and never drive them till they get out of breath. Many cattle are broken in spirit and constitution while young. Indeed, very few know what a good, well-broke, and well-fed, and well-tended pair of oxen can do. Never whip, and never talk loud. The superiority of this mode in economy of time, in ease of execution, and in final results, will be apparent enough to any one who trys it.—CHARLES H. WALKER, *in Wool-Grower.*

A SHORT CHAPTER ON HORSES.

We are very glad to be able to record the fact, that farmers are paying increased attention to the improvement of their horse stock. The stimulus of "Agricultural reading," and of minds of many persons, in regard to what is the proper stock for farmers to breed.

The wise breeder keeps control over the laws of reproduction, by a judicious selection of breeding animals; and crossing with an intelligent understanding of what the cross will produce, in "outline," and in anatomical and physiological peculiarities. He is a poor machinist indeed, who does not become familiar with the requirements of an engine, an economical expenditure of power in a given direction, and a poorer still, who does not familiarize himself with the tone, and elastic properties of metals, that he may select with reference to the dissimilar requirements of the several parts, and the combined power to be expected by the whole. The machinist aims to produce the greatest possible power in the smallest space, and with the least friction and fuel, in all of which he is consistent.

The art of breeding, being of equal, if not of greater importance, should be as carefully studied, and practised upon by the farmer. There are several prominent ends which should be sought in the rearing of horses; his reputation will be on a par with that of the well-informed machinist. An outline, pleasing to the eye, a fine quality of muscle, bone, and tendon, a large development of muscles, these combinations giving the greatest power in the smallest space. Speed and elasticity of movement, energy, intelligence and docility, large lungs and belly, with vigorous digestion, thus furnishing the means of engendering the greatest amount of physical force, from a given quantity of feed, and a long life, with continued health and energy.

These combinations are found but rarely, and we assert, without fear of contradiction, that the course heretofore generally pursued in breeding, has well nigh obliterated many of these leading characteristics of the *genuine horses.*

We occasionally find an animal, in nearly every neighborhood, possessing these qualities in the largest degree, and although of advanced age, they are always ready for their rations, and are always relied upon with confidence, for the plow or the road. Of these noble specimens, of an almost by-gone race, all are ready to bear testimony that "Old Charley's" end of the double tree has never been known to slacken, nor he to limp, complain of the colic, or refuse a feed; while many a scrub has sickened at his side, or been turned out to grass with spring knees, spavin, ringbone, sweney, windgalls, and cholic, "Old Charley" has kept the even tenor of his way, has seen generations of badly bred nags come and go, from want of capacity to digest a hearty feed, or to endure the labor of the field and road.

Farmers should select these rare specimens, and study their formation and peculiarities with care, and practice upon the lessons thus obtained.

The very worst recommendation a breeding horse can possibly have, is that he possesses great *height.* If the horse had been made like the "Crane," for wading in search of food, or could be made useful to man for hunting ducks, or as a fruit ladder, then it might be well to breed a few for these objects. But, inasmuch as, for all the uses to which we put the animal, long legs are a serious disadvantage, rendering him liable to cripple up at an early age, (who ever saw a "leggy" horse fit for the road at 15 or 20,) and being invariably coupled with other serious imperfections, it is of the utmost importance, that we steer clear of all animals for breeding purposes, both male and female, that show too much "daylight." Or, if under the apparent necessity of breeding from a mare with this form, a sire should be selected of the opposite extreme, and thus will the defect "breed off" in the progeny.

The proper horse for the farmer, (and a horse suitable for the farmer's use, is *just the horse for all purposes,*) is one of enduring constitution, round in the body, thick set, quick but not fiery, good sized joints, but not large boned, broad in the hips, deep in the quarter, strong in the loins, capacious in the chest, low upon the legs, and having a good hoof. Such a horse will be hardy, strong, and a good traveller, and always *up to the collar and the feed box.* Let us ask the farmers, what proportion of the horses that are kept through the country for breeders are of this description.

The horse that we have described as a "model," will always be found, if his genealogy be traced back, to have sprung from *high bred stock.* He may not be great of size, but a trial of 15 or 20 years has proved to his owner, that he is possessed of *quality,* unknown to the scrub. His muscles and joints are firm and powerful, and he moves with ease a load that staggers a scrub with flabby muscle, and loosely set joints, though he be of greater size.—*Ohio Farmer.*

For the New England Farmer.

LETTER FROM THE HOMESTEAD.

BY H. F. FRENCH.

What kind of a Farm to choose, Hill or Plain—Use of Stone for Fences—Apple Trees destroyed by Mice—Stone Fences best for Pastures, Doubtful as to Fields—Stones a great Nuisance in Tillage, but convenient for Drains—Consolation for those who have hard Farms.

MY DEAR BROWN:—My sojourn a few weeks on the Homestead shows what perhaps a thoughtful man might know at any time, that there are some things that may be better learned in an old place than on a new one. At Exeter I have wrought, mainly on new land, till I brought my farm, upon which I offered to sell all the hay in 1848 for twelve dollars, to yield a crop which I sold this year, standing, for $155, besides eight tons which was put in my barn. Most of it grew upon land where I had dug the stumps, cut the bushes, and sowed the grass seed in autumn, without raising any hoed crop or grain.

There is hardly a stone to throw at a dog on the fifty acres. The buildings are all new there, the trees all young, and everything in order. But here, I return to a different scene. Fifty-five years ago this house was built, and the barn and the sheds. All along during the century, from time to time, my father, who was one of the progressive farmers of his day, though a lawyer of large practice, was improving his farm. My first impressions of farming, are made up of laying heavy stone walls and blasting rocks. This was the great feature of the farm operations when I was a boy. To get a few acres clear of stones, and well walled in, was the great thing. What was undertaken, was done, in those days, and you have seen the smooth fields, and the big wall, seven feet high, round the barn-yard, built of stones many of them of two tons weight each. It would make a cannon-proof fortification about Sebastopol. Then the fifty-acre cow-pasture, and several larger pastures for the young cattle, were all walled in, and everything made secure.

Stones or no stones, that is the question. I have thought of it a good deal, as every man should, especially if about to purchase a farm. "Commentators differ" upon this, as most other subjects. One man says he would not take the gift of a rocky farm. He would have "easy land," while another does not exactly see how one can get along at all, without stones in abundance, for walls and drains and divers other uses. Having had for some years a farm of each kind under my charge, perhaps a statement of the *pros* and *cons* may be useful to some of our readers.

As to fences—a stone wall is doubtless the cheapest and most durable of all fences, and where stones are constantly working up in your fields and must be removed, no doubt this is the best use to make of them. But the objections to stone fences around fields and gardens are numerous. They occupy a good deal of land, not only by covering it, but their rough points, and the fear which cattle have of touching them in plowing, prevents working within about two feet of the wall. It is a great labor which the crop will not repay, to dig up those spaces by hand, and so it generally happens that briars and bushes occupy them, offending the good taste of all beholders. Then again stone walls furnish excellent accommodations for vermin of all descriptions. I remember that either DOWNING, or one of his correspondents in the *Horticulturist*, said, that in his neighborhood, people would as much fear that their fruit trees would be eaten by giraffes, as by mice! But while the former animal is very rare in this region, it is quite common to find our best apple trees, even of six inches diameter, entirely girdled by mice, if the trees stand near an old wall. In an orchard on the Homestead here, we have replanted the row next the wall many times, and now it is not more than half complete, because once in a few years, some hungry mouse has crept out from the wall under the snow, and avoided starvation by gnawing the bark from a tree.

Many farmers in old times planted a row of apple trees round their fields near the wall, but although the trees grow better near a granite wall, than elsewhere, for various reasons, yet the ravages of the mice, the difficulty of properly cultivating the trees and of collecting the fruit, settle the question in favor of regular orchards, rather than scattering trees.

On the whole, I think in most localities, especially where land is valuable, the balance of argument is not greatly, if at all, in favor of stone fences for our fields. For a *pasture*, there is nothing so cheap, so convenient, so reliable, as a good stone wall. If it falls down occasionally by the action of the frost, you are pretty sure to find the materials close at hand for repairs. If, therefore, one could have just stone enough to complete his walls round his pastures, and a few spare ones for drains and the like, and clean fields and gardens, it would be the prettiest farm in the world. But Providence does not so order things. While I have actually been obliged to send to a neighbor's farm in Exeter to beg stones enough to load a field roller, I should judge from the walls and fragments about the old place here, that the surface might be covered a foot thick if the stones were carefully spread again. And by the way, you remember how one Sunday this very summer, one of my Devon cows, educated in my smooth pasture at Exeter, was caught between two stones here in the pasture, ignorant as the poor thing was of such traps, and how she nearly tore her foot off. I think you cannot have forgotten the profound deference with which I bowed to your superior dignity, as being principal editor of the *Farmer*, and Lieutenant Governor, and stood by and saw you bind up the lacerated foot with tar! The only wonder to me was, that there was a place in the pasture where there was room enough for a cow to get her foot between the stones! Perhaps, however, such accidents are of too rare occurrence, to form a serious objection to rocky pastures.

Stones are a great nuisance in plowing, in hoeing, in mowing, and indeed all other operations on the land. On my Exeter place, we grind our shovels and hoes, and they hold their edges for weeks. We set the plow at one end of the field, and it runs without stopping or breaking the furrow to the other. We grind our scythes, and they are only dulled by cutting the grass itself. Here, although our fields are cleared, and the boys have picked stones for a hundred years, every stroke with the hoe or shovel gives back the sound of a pebble on the steel, and the implements are soon blunted.

We use nearly double the team in plowing, and the plow groans and labors constantly, as if passing through a stone heap, and every new breaking up of the sward brings to light a few loads more of the hidden rocks. Clear your field as you will in a stony region, some round pebble will rake your scythe from point to heel, every swath, and occasionally the point of a fast rock will break such a gap in the edge, as will send you groaning to the grindstone. And as to mowing machines, the effect of contact with stones with one of them is too painful to be more than alluded to.

In this view, decidedly, I don't like many stones on a farm. I never felt the want of them in Exeter, except for drains. Our friend French, of Braintree, I understand, purchases tiles as being cheaper than the use of stones, though stones are abundant on his farm. If I could find good land free of stones, I should vastly prefer it to what is called stony land. For my drains in Exeter, I have made use of bushes, filling the drains, say a foot or two deep with bushes, and poles of an inch or two in diameter, covered with turf or old boards, and filled up with earth. They carry water well, and have answered a good purpose thus far, six or eight years. Still they are not sufficiently permanent; and they furnish quite too good accommodations for moles and mice, "and such smali deer." Stones of almost any description are much better.

After all, there is much to be said in favor of the hard hill farms of this part of New Hampshire. The world does not produce finer apples than old Chester. They constitute the leading selling crop of the town, as indeed of the county generally. On these hills, where we find a pan so hard that we use a crowbar in digging a post-hole, and often find stones enough to nearly fill it when dug, an apple tree is almost sure to live and thrive. Trees are rarely winter-killed on high and hard land. The frost strikes neither so late in spring, nor so early in fall, as on the plains, so that we often see dahlias and tomatoes and such tender plants in full freshness two weeks later here, than in the valleys around. Less rain probably falls on the high ridges of this county, than in the river valleys, yet there is no land that endures a severe drought such as that of last year, like the high rocky farms. These are some of the considerations to be weighed in deciding how to choose a farm, when about purchasing, and some of the sources of consolation, or reasons for being discontented, which a man who lives on a hard farm may always find, according to his disposition. A morose, "sour-complexioned" man would be miserable in Paradise with Eve by his side, while he of cheerful heart will bear his portion of the burden laid upon father Adam, and earn his bread by the sweat of his brow, and find content, and create a happy home, even in a wilderness.

Truly yours, H. F. F.

Chester, N. H., Aug., 1855.

For the New England Farmer.

DEEP AND SHOAL PLOWING.

MESSRS. EDITORS:—There is nothing which will make such a lasting impression on the mind as what we experience. Theory, like the *ignis fatuus*, often bewilders and leads to error in practice. Relating our experiences, whether successful or otherwise, may prove useful by conveying instruction to the minds of those of less experience. Living in different States and working on land of various soils in different locations, I have become so liberal-minded, that, like the *anxious politician*, I can join both parties, the one in favor of deep plowing as well as the one in favor of shoal plowing. The success of the farmer in plowing his fields depends much on his knowledge of the soil he is working on; if the subsoil is clay and retentive of water, it looks reasonable that he might plow deep. If it is a hard iron pan land, which may be known by its iron-rusty color, under-draining is better than disturbing a poisonous subsoil. If the subsoil is of a loose, sandy or gravelly texture, shoal plowing would be preferable, unless large quantities of manure can be applied.

In the memorable year of 1816, in what is now the city of Lawrence, I engaged a neighbor to unite his team with mine to plow a barren elevated piece of land, the subsoil a fine clay loam compounded with coarse gravel. I put the plow in up to the beam; my neighbor exclaimed, you will ruin your land; I said, Captain, I am in no apprehension of making my land any worse, for it has borne nothing but " pussy grass" since it came into my possession. The result was that Mr. J. How and myself had the only eatable corn raised in the town that year. The next year I had 20 bushels of spring wheat at the acre, and the succeeding year nearly three tons of hay on the same acre; all these crops from one ordinary dressing of barn manure plowed in, and a little gypsum. I speak not of these crops being extraordinary, but merely to show what an effect deep plowing will have on some kinds of worn-out land that had previously been superficially plowed.

On my present farm I have plowed deep on elevated red gravelly soil, but with a different result, and have come to the conclusion that converting such land to a forest is best for the credit of the soil as well as for the interest of the proprietor. I have a field of 10 acres, low and level, which bears the drought equal to any other land; part of it is founded on a hard iron pan subsoil, which, when exposed to the air, slakes into a coarse red sand very porous. I have found draining this land by ditching has improved it, and that a superficial plowing is better than deeper. All below the organic soil appears to be an inert iron colored sand, if not poisonous, entirely destitute of any fertilizing principle, only fit to sustain the upper stratum, and the nigher I have applied the manure to the surface, the better my crops of potatoes, oats and grass have been. On the whole, I have concluded that the dispute about deep and shoal plowing will compare with that about the color of the chameleon. Every thing relating to success depends upon the situation and kind of soil we work upon, and the care and manner of doing the work; and every farmer must judge from observation whether deep or shoal plowing will afford him the best crops. For one, I am fully persuaded that deep plowing in soils of certain combinations, which I am not chemist enough to define, is altogether best, and that with our scanty supply of manure, generally, shoal plowing in many locations will better reward the farmer's expectation.

Wilmington, 1856. S. Brown.

For the New England Farmer.

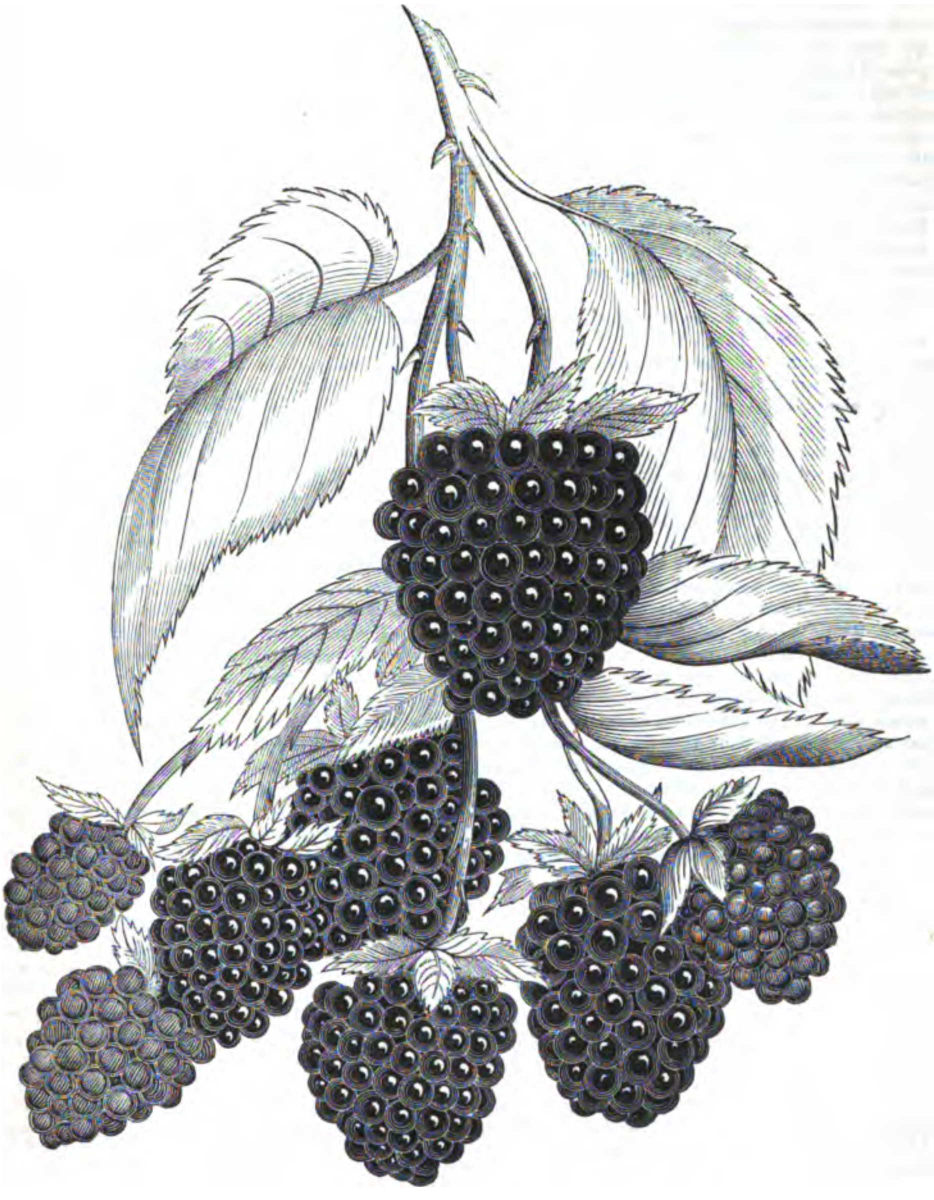
PEAT FOR MANURE.

Peat, muck and meadow mud consist largely of decomposed and decomposing vegetable matters, which have grown on the spot where they are found, or been washed into their present localities from the surrounding high lands. Being covered up and excluded from the action of the atmosphere, decomposition goes on very slowly. In proper peat there is present more or less tannic acid, which preserves it from decomposition. In addition to the vegetable matter in peat and mud, there are present such mineral elements as existed in the vegetables of which it is composed, and such as have been washed from the neighboring soils. Of course there will be found some difference in their composition, arising from the nature of the surrounding soils. The minerals principally found in peat are silica, lime, magnesia, iron and alumina. I find on record analyses of about thirty samples of mud, and the average of them gives 79 per cent. of vegetable matter, more than half of which is in an insoluble state, that is, not completely converted into humus, or but partially decayed. One quality in peat and muck which adds greatly to its value, is its strong affinity for ammonia, which it absorbs with great avidity and retains for the use of plants. Dried peat has an almost unlimited power of absorbing and retaining this element so necessary to vegetation. When peat is quickened by an admixture of substances containing ammonia, it becomes one of the very best fertilizers that can be applied to light, sandy soils, and indeed to all soils that have been deprived by cultivation, of vegetable matter, that was present in them when they were first brought under the plow. It restores the very elements which they need.

When we say a soil has been exhausted, we mean that the vegetable and mineral elements on which plants feed have been eaten out of them. Peat and mud abound in the ponds and swamps and meadows, and by the sides of the creeks that are so liberally distributed throughout the eastern States. They are so many reservoirs in which have been accumulating for centuries, the very materials that are needed to renovate the light soils upon their borders. These soils, since the wood has been cut from them, and they have been brought under cultivation, or used for pasturage, have been exposed to the full action of the rain, which has dissolved and washed the salts and soluble humus into the low grounds adjacent, where they are stored ready to be returned to the soil from which they were taken. An inexhaustible supply is thus provided, ready to be used over and over again by succeeding generations of cultivators. Nature is thus furnishing materials to ensure the fertility of the soil for all coming time. But nature will not apply it to the soil. Man must do his part of the work. It is for him to apply the materials thus provided for him, to the soil which is most in need of it, or which his convenience may lead him to cultivate. This he must learn to do at the proper time, and in the most economical way.

Nature is ever at work for man; but she does not do everything for him. She intends that he should be a worker too. She provides for him, all the materials he needs, and points out to him the deposits in which they are stored, and compels him by his wants and necessities, to bring them to light, and apply them to use. Thus when he finds the soil, by continued cultivation, so far exhausted that it refuses longer to supply his wants, he is compelled to examine its composition, and see what it has lost, and inquire how it can be restored to that state of fertility in which he found it when he first put it under cultivation. He compares his worn-out field with a portion of virgin soil. He finds the decayed vegetable matter, and some or all the salts, have disappeared. The remedy then is obvious. The vegetable matter, the staple food of living plants, and the wanting salts, must be restored. But where are these to be found? This becomes the subject of anxious inquiry. He notices that the lighter and more soluble portions of his lands are being constantly carried by the rains and melting snows into the valleys and basins and lowlands, and that vast accumulations have here been made, and upon examining them, he finds the very elements which are wanting in the soil which he has been cultivating. Here then he has found the very thing he wants, the means of restoring to fertility his worn-out and exhausted land. His own industry and ingenuity must do the rest. Here nature leaves him to work alone. She has provided the material which he needs, and stored it up in vast deposits within his reach. When man has cut off the forests around his dwelling, and destroyed the fuel upon the surface of the earth, he examines the bowels of the earth, and there he finds vast store-houses of fuel provided for his wants, by the beneficent hand of nature. But by his own ingenuity and labor he must bring it to the surface, and prepare it for use. Thus it is with the fertilizing elements which he has used up in the land from which he has drawn the means of sustaining his life. Because his land grows less and less productive by continued cultivation, he need not fear that it will ultimately become barren, and cease to supply his wants. Nature, with far-reaching sight, has foreseen this very emergency, and provided for it long before his necessities led him to make the discovery, and now his own labor and skill must do the rest.

Concord, Aug. 10. J. R.



NEW-ROCHELLE, OR LAWTON BLACKBERRY.

We have published, before, some account of this delicious fruit. It is hardy, and a great bearer, and is an important accession both as a dessert and for preserving.

The account below is from the *American Agriculturist*, and we publish it, with the accompanying engraving, not to endorse all that is said of it, because we have not a personal knowledge sufficient to justify it. Judging, however, from the specimens we have growing in our own garden, we hardly think the description overstated. The plants may be purchased in this city of GEORGE DAVENPORT, Esq., 14 Commercial Street.

A year since we gave a somewhat full report (the first one published, we believe,) upon the claims, characteristics and value of the New-Rochelle Blackberry—called also the Lawton. We recommended the plant as one worthy of general cultivation, and our endorsement and remarks have been extensively copied by the press of this country, and by some European journals, and a very general interest has been awakened. An evidence of this is found in the circumstance that, during this month, more than a hundred horticulturists and others, from Boston, New York, Philadelphia, and the cities and towns between these places, as well as from Concord, Albany, Newburg, Utica, Syracuse, and Rochester, have visited the grounds of Messrs. Geo. Seymour & Co., of South Norwalk, Conn., in response to their invitation for "all interested to come and see the plant growing and bearing, and *taste* the quality of the fruit."

These gentlemen have, we believe, the largest area in the country (some five or six acres) devoted to the cultivation of the genuine variety of this plant. A part of this ground they use for raising young plants, and a part was left to fruit this year for the purpose of showing it in bearing while in field culture. All who have examined the fruit have been surprised and delighted with the large size of the berry, its deliciousness, and especially its productiveness. We visited this plot on Thursday of last week, and from what we saw there, as well as at other times during the past year, we are ready to endorse all we stated a year ago.

The plants especially devoted to fruiting were set out two years ago—eight feet apart each way—upon a rather poor, worn-out, hill-side soil, with no other previous preparation than plowing and an ordinary coat of barn-yard manure. The only cultivation since has been keeping down the weeds, and the application of about 400 lbs. per acre of Peruvian guano, which was sown broadcast last spring and worked in with a cultivator where the plants were not spread out so much as to preclude the use of this implement. The ground is now so thickly covered with loaded vines and young shoots that it is difficult to go over it.

Since the beginning of the month visitors have had free access to about.one-fourth of an acre, and though hundreds of quarts have been eaten or carried away, the whole vines on this plot seemed to be loaded with berries. Two canes in each hill were allowed to fruit. We counted the berries on some of the average-bearing canes or single stalks, and found from 500 to 1,000 ripe or growing berries on each.

The size of the fruit can hardly be appreciated by those who have seen only the common varieties of blackberry. Of about the average size, 30 to 40 berries filled a pint basket; while of those a little above the medium, 20 to 25 berries did the same. An inch to an inch and a half may be set down as the average diameter, though larger berries are quite common.

There are two remarkable things about this variety, viz: its few seeds and its richness of flavor, notwithstanding its large size; and its steady bearing, for we learn that it has not failed to yield an abundance of fruit every year since its cultivation, now a dozen years or more.

It appears quite hardy, as it sustained very little injury in the open field during the past severe winter. We noticed the tops of a few of last year's canes were slightly nipped by frost.

It grows well even upon poor soil. We should advise a moderately dry loam, but some cultivators recommend even a heavy clay as best. It has been thought that blackberries need shade; but those cultivated by Seymour & Co. are upon an open lot, and we found the best and richest berries upon the top of the vines, where most exposed to the sun. However, the fullest clusters of the largest fruit, though not the sweetest, were partly shaded by the leaves. Mulching, or covering the soil with straw, leaves, salt hay, or some such substance, is doubtless good treatment for this, as for all similar plants. We should advise the selection of at least a moderately good soil, deep plowing or spading, with a coating of barn-yard manure or guano. When first set out they should be placed at about their natural depth, say 3 inches, in rows 6 to 10 feet apart, and the stems be cut down to within six inches of the ground.

They may be set out in November or April, in this latitude; at the South, in March. Probably November planting is preferable. If planted in autumn, it is better to cover them up till spring with straw or litter.

We have spoken thus freely of this fruit, because we esteem it a valuable acquisition, and we desire to see it distributed so extensively that it may soon become abundant in every market. It now sells readily in New York for 25 to 20 cents per quart, while we do not see why it may not be raised, with a fair profit, at 5 or 6 cents a quart. Once planted, it requires no more labor to cultivate it than the same area of corn, since the chief care required is to keep down the weeds and an excessive growth of young shoots: though all of these that can be raised for some time to come will probably be in demand at fair prices. The limited supply, and the high prices heretofore asked, has been a bar to its general introduction; but several persons have a large number of growing vines which will be ready for sale the coming autumn, and we learn that the price is being considerably reduced.

A word of caution is necessary in reference to securing genuine plants, carefully packed: for unprincipled and irresponsible peddlers and speculators will in this case—as in that of fruit trees—attempt to palm off anything in the shape of a blackberry vine, as the genuine New-Rochelle. If carefully packed, they may be carried safely to a considerable distance, provided always, that in taking up or setting out, the roots are never left exposed to wind and sun.

For the New England Farmer.

TO MAKE BARREN QUINCE TREES FRUITFUL.

MY DEAR SIR:—The complaint of your correspondent, C. G. W., in the *Farmer* of Aug. 11, of the sterility of his quince trees, after a full blooming, is by no means an uncommon one. I have never been troubled with it, and have therefore had no personal experience in the matter, but have been credibly informed by those who have, that removing the earth from the principal branches of the roots, and puncturing through the bark with a fork, (common table fork,) or any sharp instrument, has proved efficacious in preventing a recurrence of the blight which settles upon the blossom, and prevents bearing. These punctures, as I understand it, must be so thick as to well scarify the bark, which, from their smallness, will soon heal over, and should be given after the fall of the leaf in autumn, or in early, spring. When the puncturing operation is performed, the earth is, of course, to be replaced over the roots. The above remedy seems to me very plausible in theory, though it looks like a small and insignificant operation, (such, however, are often the best,) and for those who have cause for experimenting, it can be very easily tried, with the assurance that if no good results from it, no harm can follow.

I have found sowing gypsum on fruit trees, when in blossom, very beneficial in inducing the fruit to set. Sow when the leaves and blossoms are wet with dew or a moderate rain. Its effects upon the quince would probably be equally beneficial as on pears, plums and apples, though we cannot speak with certainty on the matter. Salt for quince trees I have found very beneficial. Apply over the roots in March. Yours truly, W. Bacon.

Elmwood, Aug, 13, 1855.

UNKNOWN TONGUES—LANGUAGE OF ANIMALS.

We make the following extracts from an article on this subject in *Putnam* for August:

How easily spiders are made to know the voice of their master, is familiar to all, from many a sad prisoner's tale. When the great and brilliant Lauzun was held in captivity, his only joy and comfort was a friendly spider. She came at his call; she took her food from his finger, and well understood his word of command. In vain did jailors and soldiers try to deceive his tiny companion. She would not obey their voices, and refused the tempting bait from their hand. Here, then, was an ear not only, but a keen power of distinction. The despised little animal listened with sweet affection, and knew how to discriminate between not unsimilar tones. So it was with the friend of the patriot, Quatermere d'Ijonville, who paid, with captivity, for the too ardent love of his country. He also had tamed spiders, and taught them to come at his call. For, when the French invaded Holland, the prisoner managed to send them a message, that the inundated and now impassable country would soon be frozen over so that they would be able to march over the ice-bridged swamps and lakes, for the spiders, true barometers as they are, had taught him to read, in their queer habits, the signs of approaching weather. The frost came, and with it the French; Holland was taken, and the lucky prophet set free. The spiders, alas, were forgotten.

Even the "hateful toad" has been the captive's friend and companion, and shown itself endowed with a fine ear and remarkable talents. They come out of the dark night of their holes, when their self-chosen master's voice is heard. They take flies from his hand; but what is the strangest of all, they actually learn to measure time; for more than one well-authenticated instance speaks of their having appeared only at stated times, when the jailor was absent and all was safe.

* * * * * *

The language which animals speak, by means of friction or concussion, is naturally the least known of all. We see the eager ant rushing homeward to tell the news of an invasion; she meets a friend, their antennæ touch and play with each other, in rapid succession. The messenger returns, the latter conveys the news by the same means to others, until the whole army is informed. Here we see, not an instinctive feeling of dread, but a clear, undoubted communication of facts. So among bees; the instant the queen dies, the sad event is made known throughout the hive. No sound, perceptible to human ear, is heard, but the antennæ move with surprising effect, and, as the result of a clear act of volition. It is not a sensation, merely, nor an instinctive action, but it has all the signs of special purpose. How they speak, we know not; this only is certain, that their language is not like that of the deaf and dumb, with whom signs represent letters or words.

The cricket, even, is not without its note of utterance, and although a purely mechanical sound, it has its sweetness and charm, so that Milton could speak of being—

> "Far from all resorts of mirth
> Save the cricket on the hearth."

It produces a loud, clear sound, by a quick vibration of the elastic skin between its wings; and from the time when the Athenians wore golden cicada in their hair, to our days, when the cricket on the hearth is the proverbial image of home comfort, its simple note has been dear to the heart of man. The true cricket, however, speaks only in the sunny time of love. The male begins in his hermit-cell, as May approaches, to produce a low, inward note of longing. As the sun rises higher, and summer advances, his shrill song becomes louder, until he finds the desired companion. Then he returns to his solitary life once more, and his voice dies away by degrees. Dean Swift has left us a humorous description of the curious note of the death-watch beetle. The little fellow, in his narrow cell, falls in love; immediately he begins to thump his head against the ground, and uses such energy in his demonstrations that he leaves deep marks in the softer kinds of wood. The powerful stroke produces a loud sound, the infallible presage of death to superstitious man, the soft music of love tô the female beetle. If other males are within hearing, they all join in the concert with furious knocking, and such is their jealousy or zeal to answer, that even the ticking of an innocent watch excites their wrath and their loudest notes.

PRICES OF FLOUR FOR 20 YEARS.

In the Months of January, February, March and April.

	January.	*February.*	*March.*	*April.*
1836,	7,25	7,50	7,37½	7,50
1837,	10,12½	11,00	11,25	10,25
1838,	8,75	8,25	8,00	8,25
1839,	8,87½	8,93¾	8,00	8,50
1840,	5,87½	6,37½	9,75	5,62½
1841,	4,93¾	4,87½	4,75	4,92½
1842,	5,87½	6,43¾	6,12½	6,25
1843,	4,56¼	4,37½	4,75	5,12½
1844,	4,62½	4,81¼	4,93¾	4,90¾
1845,	4,68¾	4,84¾	4,81¼	4,75
1846,	4,66	4,56	4,76	4,62
1847,	5,12	7,00	7,12½	7,62
1848,	6,87	6,25	6,12½	5,75
1849,	6,00	5,87	6,00	5,60
1850,	4,50	5,50	5,56	5,50
1851,	5,00	5,00	4,75	5,00
1852,	4,56	4,62	4,52	4,81
1853,	5,56	5,50	5,00	4,56
1854,	7,87	9,60	9,00	9,75
1855,	12,00	12,50	11,75	13,00

Remarks.—The above were the prices at Albany, we suppose, as we cut the above from the *Journal of the New York Agricultural Society*. At Boston, prices have ranged considerably higher than the highest in this table, having in the course of the last six months been as high, at retail, as $14.

For the New England Farmer.

GREEN CORN FODDER.

Does green corn, when fed to cows, increase their milk? This is a point on which different opinions are entertained by practical men. I yesterday met a gentleman, who has one of the best farms in the vicinity, on which fifty or more cows have been kept for years, to furnish a supply of milk for the market; and he expressed a confident opinion that little or no benefit, by way of increasing the milk, accrued from feeding to cows *green corn.* I expressed surprise at this, as I knew it to be cultivated by many good farmers for this purpose, and as I had often seen it recommended in agricultural publications. He said he knew all this—but still his own experience was to the contrary. Now this is a question that should be settled. It is of far more consequence to know whether such feed is worth growing, than to know how much corn can be grown on an acre. We find every agricultural society of the land offering premiums for the best crops of corn on an acre, but I have never known a premium offered to test the value of *green corn* as a feed for milch cows, at the season of the year when the feed of pastures comes short. Mr. Editor, can you give the public any light on this question? Yours truly, AGRICOLA.

August 16, 1855.

REMARKS.—We have never made note of the actual quantities of milk produced with, and without green corn fodder; but we should just as soon doubt whether *green grass* increased the quantity of milk, as to doubt that green corn fodder does. At the same time, we have great deference for the opinion of others, who have opportunity to notice the effect of such feeding, and whose opinions are, perhaps, as good as our own.

DANCING CRANES.

A correspondent of the *Prairie Farmer*, writing from "The Grove, Illinois," gives the following interesting description of the Brown Sand Hill Crane:

Many of these noble birds still nest in this vicinity, but their number is small compared with the numerous flock that a few years since might be seen holding their strange dances on some favorite knoll, or feeding, while their sentinels, judiciously posted, stood ready to give warning of any suspicious intruder.

Some are incredulous as to the dancing of cranes. It is true, their movements are not as graceful as a Frenchman's, or their quadrilles quite *a la mode*, but dance they certainly do. As for their music, though lacking the harmony, it is about as loud and melodious as a fashionable opera air.

The Sand Hill Crane is omniverous, devouring pretty much anything eaten by birds. The nest is a simple pile of rushes or grass—flat on the top, built in some deep slough or pond. The eggs, two in number, are shaped much like those of the common turkey, of a light amber color, splashed with brown. The nest is usually surrounded by deep water, but the young birds swim readily, and leave it as soon as hatched. It is believed by many that they separate, immediately upon leaving the nest, each of the old birds taking care of one—the supposition being that they would fight if allowed to remain together. In corroboration of this somewhat singular idea, I can only say, I never found two of the young birds in company, and a pair which I had caused a hen to hatch, fought from the time they left the shell, till, in fact, they killed each other outright.

The bird is easily domesticated. I kept one for several years, who showed all the attachment and intelligence of a dog. He never forgot a friend or forgave an injury. If any one had abused him, it was of no avail to attempt disguise; he recognized his enemy in any dress, and by an angry croak showed his displeasure, and warned them to keep out of his reach. He was a great gormandizer, and was very fond, among other things, of field mice, (*Arvicola*,) many of which he destroyed, being quite expert at finding their nests, and searching out the inmates with his long bill. He would have been of service in the garden, were it not for his inquisitive propensities, which led him to pull up for examination everything he saw us plant. Though a desire for knowledge might be very laudible, this mode of obtaining it met our disapprobation, and eventually caused his banishment.

Though a migratory bird, he did not seem to suffer from cold in the winter, and being fond of wading, even kept a place in a neighboring slough free from ice till late in the season, by tramping about in it. I provided him with a warm house, but he preferred to sleep with the cows. He always slept beside one of them, lying flat on his breast, with his legs folded under him, and his head and long neck turned back between his wings. He was on good terms with all the cattle, and might frequently be seen playing with them; his part of the performance consisting in springing up, flapping his wings, and whooping tremendously. This was precisely the same as the dancing of his wild brethren. He would also dance to the waving of a handkerchief; and on windy washing-days sometimes danced for hours at a time to the clothes on the line. When much enraged, he would stand with his head and bill pointed directly upward, and utter a harsh, croaking sound, quite unlike his usual *whoop*.

A young crane makes no despicable article of food. The old ones, I should suppose, would be rather tough and snaky; but an old Indian hunter of my acquaintance says, "A turkey is not half as good eating."

Audubon supposed this to be only the young of the White Crane, but he was wrong. The White Crane, (*Grus Americana*) is more of a southern bird, and exceedingly rare here. I saw a pair flying over this fall for the first time. These two species are amongst the largest and finest of our North American birds.

THE DECAY OF TIMBER.—Some years ago, a philosopher, being acquainted with the fact that every species of fungus, which is the real source of the rot in timber, can vegetate only on substances which are soluble in water, made the following experiment with sawdust. He took a portion of sawdust from a heap, and divided it into two equal parts. One heap was washed over and over again in water, till everything soluble was removed; the other heap was undisturbed. Both, having been dried, were placed, side by side, in a damp, close vault, and allowed to remain there several weeks. They were at length taken out, and the following was the result:—that portion which was washed until nothing more could be carried off by water, remained clean and bright as when it was carried into the vault: the unwashed portion had become the prey of foul parasites, and was completely imbedded in an offensive mass of mould. This experiment proved the theory of the philosopher, and convinced him, that, if by any means our timber of any sort could be deprived of all those matters contained in it which are soluble in water, it could be kept any number of years entirely free from rot.

For the New England Farmer.

SHORT READINGS ON APPLES.

THE MAGNOLIA.

This apple is the one which the late Mr. Cole introduced. It is nearly unknown in this region, (coming from Bolton,) and I have not seen but two persons who knew anything about it; namely, Mr. Cole, and a dealer in fruit at the Quincy Market, who said it was the best apple he ever tasted. Large medial, sprightly and tender, pale yellow ground, with crimson side. If any of the readers of the *Farmer* are acquainted with this fruit, I wish they would communicate upon it. Ripe in November.

THE AMERICAN SUMMER PEARMAIN.

A year ago last autumn, in September, I discovered an apple in Pleasant Street, Boston, which greatly excited my interest. A grocer had bought a barrelfull of a countryman for three dollars, but was not informed of their name. Most of them were large to very large, rather flat, with a broad basin, yellow ground, nearly covered with dark red. They were generally fair and uniform in shape, and would have created a sensation on the Massachusetts Horticultural Society's tables. They were tender, very pleasant and juicy, with white flesh, and many of them had numerous dark blotches, and some of them were slightly cracked. So interested was I in this splendid apple, that I was determined, if possible, to find out its name. I accordingly pocketed some, and took the liberty of calling on many eminent fruit judges in the city; but strange to say, no one could tell what it was. Last fall, I discovered another barrel of them, or what I supposed to be the same; yet they were of lighter color and were less blotched. The fruit-dealer did not know what they were, and I determined to make further inquiry. To be brief, I found a nurseryman who suspected it was the American Summer Pearmain; and looking into *Cole's Fruit Book*, I recognized it, I thought, in his description. This apple is so rare and beautiful, that it deserves an extended notice from some one who has cultivated it in New England. New Jersey is the place of its origin, and Mr. Cole says it cracks badly with us. Do cultivators of it here find it to be so?

COLE'S QUINCE

Is an apple which makes a great figure in *Cole's American Fruit Book*, and will probably be much sought after on his recommendation. I have a tree which bore about a dozen this year, but they did not meet my expectations. Most of them are knotty and wormy, and show no indications of ever being fit to eat; and though the tree sets full, most of the fruit falls prematurely. Mr. Hovey has it in his catalogue, and calls it a winter fruit; while in fact, it is an August and September apple. Unless my tree shows something better another year, I shall regraft it. Is there any living man well acquainted with this fruit, now Mr. Cole is departed?

THE GARDEN ROYAL

Is a very delicious September apple, and though hardly large enough to be considered a first-rate market apple, it has no rival while in the field. It sells rapidly at an extra price. Though not so large as the Gravenstein or the Porter, neither so firm nor so handsome, it must be a favorite wherever known for its tenderness, juiciness and fine mild flavor, which is similar to the Hubbardston Nonsuch, and its color also is very much like that apple.

THE FAMEUSE, OR SNOW APPLE,

So called from the whiteness of its flesh,—is a brilliant gem among autumn apples, ripening in November; medium size, flattish, smooth and uniform in shape, with as high color as the Williams, and purer flesh, it always attracts attention. It is very tender, pleasant and juicy, and in December has the freshness and peculiar flavor of an August apple. This fruit came from Canada, and is suited to cold regions.

THE RED ASTRACHAN

Is an apple which is attracting much attention at present, and for an August apple, will rival, if not surpass, the Williams. It possesses some virtues which the latter fruit does not, though its flavor is not so mild and agreeable. It has a white, delicate ground, mostly covered with vermillion, with a bloom similar to a red plum. It is a good grower, and an early bearer; but a little too tart for most persons, and rots more rapidly than the Williams.

W. Medford, Aug. 20. D. W. L.

For the New England Farmer.

BLIGHT UPON THE ONION.

About four weeks since I had occasion to pass some of the fine cultivated fields of onions, that abound in this vicinity, when they were clothed in a luxuriant *green*; since then I have seen the same fields almost *white*, with tops drooping and fallen—with bottom not yet perfected. The occasion of this sudden change I do not understand; but learn from those interested, that their crop is blighted; that whenever the blight prevails, the product will be greatly diminished. Whether this fallen, decrepid appearance, is the consequence of insect operations, or superabundance of moisture, or is occasioned by any peculiar state of the atmosphere, I will not presume to say; but that it prevails, to a very considerable extent, cannot be denied.

We have noticed contiguous fields, one drooping, the other upright;—and parts of the same field fallen and parts not fallen; but how to explain this difference is not in our power. Perhaps if we had marked the time of planting, and the manner of manuring, and the use made of the field in years previous—the solution of the problem would not have been so difficult. We speak of only what we have seen—if others can tell more, we should be pleased to know it.

The culture of the onion has expanded, within our recollection, almost without limit; and if, like most other objects of culture, it is to be regulated by the profits of the business, it is destined to a still greater extension.

We know of no section of the country, where it is more successfully pursued, at the present time, than in the environs of Salem, Mass. Here are to be seen, fields of six, eight or ten acres together, under the care of the same individual, with the prospect of four or five hundred bushels to the acre. The average price of this vegetable, for the last ten years, has been as harvested from the field, not less than *fifty cents* per bushel—and so on to *one dollar*, according to the demand. More than 200,000 bushels were grown the last year in a single town adjoining Salem. Can any one name a more productive article of culture?

It may be asked, where is the utility of growing this crop, as it cannot be looked upon as an essential article of food for man or beast? With much more propriety may it be asked where is the propriety of growing *tobacco*, as done on the fine lands on the borders of the Connecticut—which in all its qualities is positively bad. Still, so long as there is a demand for these things in the market, they will be grown; and less harm will follow the growing of the salutary onion, than the nauseating and poisonous tobacco plant—too offensive to be used by any animal except man. *

EXTRACTS AND REPLIES.

RED-HEADED GRUBS.

Mr. Editor:—I should like to learn through the columns of your invaluable paper, whether there is a remedy for the red-headed grubs which are destroying whole fields of grass? They eat off the roots of the grass, so that the turf will peel off.

It seems that the better the land is cultivated, the more worms there are. This worm is called by some the muck worm. J. P.

Remarks.—No depredations of this kind are going on in this section, and if so, where they are on so general a scale, nothing that we could afford to apply would be likely to arrest them. Will our correspondent try ashes on a square rod, spread on liberally? and on another lime, noting the amount of each that he applies? We shall be glad to learn the result.

LICE ON CATTLE.

This pest may easily be removed from any creature in an hour's time by washing or *lathering thoroughly* with good soft-soap and soft water. About two quarts of each thoroughly mixed and warmed, will, if well applied, kill every louse, and every egg will be prevented from maturing on any animal, whether horse or ox. This is a perfect and a safe remedy. If very troublesome, it is frequently best to "soft-soap" them the second time, after the first has become dry. After the second drying, wash out the soap with water in plenty, and you need fear no bad effects from it, but on the contrary, the creature will thrive the better, colts especially.

The above application is worth five dollars to every colt, whether lousy or not, before putting off to pasture in the spring. It should be done in a warm day.

Tobacco, snuff, oil, mercurial preparations, ashes, sulphur, and many like things, are generally resorted to, and even *arsenic* is sometimes used. If either is applied in sufficient quantities to produce a perfect cure, the health of the animal must be impaired by the absorbent vessels taking too much of their poison into the system. Who would dare cover himself with mercurial ointment, or arsenic and lard? I pause for a reply." G. F. N.

LOCUSTS—GARGET—NEW PROLIFIC WHITE POTATO.

Mr. Editor:—I snatch a moment from the hurry of business to reply to a few inquiries in the *Farmer* for August. Locusts made their appearance in Sandwich last June. I have two pairs, male and female, upon a card labelled "Locusts of July 1st, 1855, due again in 1872;" they appeared in considerable numbers, but in East Wareham, very few compared with 1821. In 1838, I was in the "Far West," and do not know as they appeared in this section.

Some one, for garget, recommends linseed oil as a sure cure. It may cure in some cases, as oils are sometimes used with success in local inflammations; but in using linseed oil for garget, there is great danger of driving the disease into the entire system, and greatly injuring the cow. Upon the first appearance of garget, carefully and thoroughly wash the udder and teats with pure cold water, both before and after putting the calf to the cow, or milking; milk three times a day, or at least wash that number of times; and in a very short time your cow will be free from the disease. I have never known this treatment to fail of curing, even in cases where the udder and teats had become badly ulcerated.

In reply to the inquiry of James Richardson, Jr., I have a new variety of white potatoes that are much more prolific than peach-blows, that I have tried and proved for, I think, about eight years. Two years since I was absent from home from December to the last of the following July, during which time these potatoes were sold or otherwise disposed of, much to my disappointment and regret. However, there sprang up a potato vine in my garden, which was then uncultivated, which throve well; and in the fall I dug the potatoes, and to my surprise, and satisfaction, found them to be of my cherished seed. By referring to minutes of last year, I find that with this seed I planted about twenty hills. My potatoes last fall were harvested in my absence, and every variety of white potatoes put together. This spring I found time to search out my favorite seed, and have planted 318 hills; the largest were cut into three pieces, two pieces to the hill; the small, of the size of hens' eggs, planted whole, two to a hill. Their flavor and the color of their flesh is similar to pink eyes or peach blows. There is so marked a distinction between them and any other variety known to me, that I could, after they have sprouted, pick them out in the dark from any others. I call them *Cape Cod.*

North Sandwich, 1855. Mortius.

SUPERPHOSPHATES.

What is the effect in applying De Burg's superphosphate of lime, and have it come in contact with lime or wood ashes? S. E. R.

Remarks—Superphosphate of lime as sold for agricultural purposes, is a combination of substances, some of which might be affected by coming in contact with quick-lime or ashes. As a general rule, it is best to use them separately.

TO MAKE BARREN QUINCE TREES FRUITFUL.

MR. EDITOR:—In answer to the inquiry, what can be done to make barren quince trees fruitful, I would say, that my method is to graft them. The grafts will bear the second year, and then you will have an abundance of fruit. Besides, you can select the best of fruits, which is an advantage.

But some say that oyster shells have the desired effect. I think if there is any virtue in them to make the barren fruitful, it is the salt, and if so, the salt alone will produce the same effect, and may be obtained with less trouble. P. WAIT.

Danvers, Aug., 1855.

CURCULIO REMEDY.

Saturate a piece of cotton cloth, eight or ten inches wide, in strong soap suds, and tie around the tree below where the limbs start out. The fruit of trees which I have served thus is entirely free from punctures, while the fruit on those without the cloth is sadly affected. F. STEVENS.

Halifax, N. S., 1855.

BARREN PLUM TREES.

In reply to C. G. W., in the July number of the *Farmer*, in relation to barren quince trees, I would say that plum trees, in the like state of barrenness, can be brought to bearing successfully, by applying a few quarts of salt around the roots, put on in the fall. H. B.

Northfield, Vt.

H. BROWN, *Foxboro', Mass.*—The apples you sent are probably seedlings, though it resembles Lyman's Large Summer apple, introduced to notice by Mr. S. Lyman, of Manchester, Conn. Being early, and of a sprightly sub-acid flavor, it is worthy of cultivation.

A box of Grapes, of J. FISKE, *Holliston, Mass.* Very large, and a month earlier than usual. Mr. Fiske states that the vine covers a space of fifty feet *over the cow-yard*, thus preventing the manure from drying, and affording a fine shade for the cows.

Early Sweet Bough Apples, from ABEL COOK, *Lunenburg, Mass.*—Large and beautiful. There are not half enough of them produced.

For the New England Farmer.

POTATO CROP.

The forebodings of the *last week* are realities of the *present week*. Unequivocal demonstration has come to us from Swampscot, on the one side, and Beverly, on the other, of the fatal prevalence of *the rot* among the potatoes. The chenangoes are most affected. We would caution against the use of potatoes that have a tendency to the disease. We have known entirely families taken with severe indisposition, by reason of the use of vegetables thus affected, even when they were entirely fair to the sight. Of this we have no doubt. Of the new varieties of potato that have been tried in this vicinity, the present season, there is none so highly praised as *Davis' Seedling*. Side by side, with other varieties, this escapes disease entirely. Some pretend to crack up the "State of Maine potato,"—but the best observers say, it is a miserable concern—entirely unworthy of regard.

Aug. 23, 1855. SOUTH DANVERS.

For the New England Farmer.

SPECULATIVE INQUIRIES.

MR. EDITOR:—Your correspondent from Chelsea seems to be moved with a horror inexpressible, at my reference to "Orion and the Pleiades" as influencing vegetation. If my recollection is right, my reference to these beautiful heavenly bodies was simply to show the folly of scriptural citations, in the explanation of natural events. Not that I for a moment entertained the belief of any such influences. He thinks we had better wait a "little longer," and see what further facts will be developed. This may be so, but would not such waiting put a stop to all inquiry? Have not I the same right to denounce his opinions as "supremely ridiculous," as he has mine? He, and all other controversialists, should bear in mind, that those who live in glass houses should be careful how they throw stones.

Your intimation that the ebbing and flowing of the tides may be caused otherwise than by the attraction of the sun and moon, is well calculated to admonish the sage philosopher of Chelsea that there are more ways than one to accomplish the same end. It had not before occurred to me, that the theory of the tides, which I learned when young from Enfield, was not well-founded; but I should not be surprised to learn, that the daily revolution of the earth upon its axis, and the inequalities upon its surface, have quite as much to do in producing the constantly recurring phenomena of the tides; as the attractions of masses of matter, so remote as are those of the sun and moon. At all events, a man should be wiser than your correspondent has shown himself to be, before he pronounces any assertion supremely ridiculous. *.

August 11, 1855.

EARTHING UP CELERY.

The present season has been a favorable one for celery, as indeed it has for most crops, and celery will no doubt be fine and plentiful. Where only sufficient is grown for the supply of the family, a little extra care should be given to earthing up, which is amply repaid by having clear sticks, nicely blanched. For very early use a small portion should be commenced as soon as large enough to draw earth to without fear of its getting into the crown, which should be carefully guarded against. The bulk of the crop will be better left till towards the end of September before earthing. If any manure water is obtainable before earthing, it is much benefited by having a good soaking, especially if the ground is any way poor, as it likes a very rich soil.

In earthing, careful growers always go along first with the hand, and pull off any little short leaves that would, if buried, only rot, and draw the earth nicely about each plant. A portion of the soil is then loosened up with the spade and made tolerably fine, and pushed up towards the plants. If they have been planted in trenches, if filled up level, it is sufficient for the first time, giving it one or two good earthings at intervals of one or two weeks.

For field culture, or where the breadth is large, and grown for market, recourse must be had to the plow, or the expense would be too large to secure a return. Many earth up with the plow without any handling of the plants, and with care and caution are able to do it without disturbing the leaves much; but as a general rule, it will pay to draw a little to them first, with a hoe or the hand, as if a clod gets on the heart of the plant, the leaves get twisted and bent, and are worth less in the market. Except the soil is mellow, celery will hardly pay as a crop, from the difficulty there is in getting the earth sufficiently fine about the leaves.—*Country Gentleman.*

EFFECTS OF HEAT UPON MEAT.

A well cooked piece of meat should be full of its own juice or natural gravy. In roasting, therefore, it should be exposed to a quick fire, that the external surface may be made to contract at once, and the albumen to coagulate, before the juice has had time to escape from within. And so in boiling. When a piece of beef or mutton is plunged into boiling water, the outer part contracts, the albumen which is near the surface coagulates, and the internal juice is prevented either from escaping into the water by which it is surrounded, or from being diluted or weakened by the admission of water among it. When cut up, therefore, the meat yields much gravy, and is rich in flavor. Hence a beefsteak or a mutton chop is done quickly, and over a quick fire, that the natural juices may be retained. On the other hand, if the meat be exposed to a slow fire its pores remain open, the juice continues to flow from within, as it has dried from the surface, and the flesh pines, and becomes dry, hard, and unsavory. Or if it be put into cold or tepid water, which is afterwards gradually brought to a boil, much of the albumen is extracted before it coagulates, the natural juices for the most part flow out, and the meat is served in a nearly tasteless state. Hence to prepare good boiled meat, it should be put at once into water already brought to a boil. But to make beef tea, mutton broth, and other meat soups, the flesh should be put into cold water, and this afterwards very slowly warmed, and finally boiled. The advantage derived from simmering, a term not unfrequent in cookery books, depends very much upon the effects of slow boiling as above explained.—*Chemistry of Common Life.*

For the New England Farmer.

A GOOD PRODUCT OF RYE.

MR. EDITOR:—I was informed by Mr. ADINO PAGE, of S. Danvers, that he had 7¾ acres of rye the present season, from which he harvested 229½ bushels,—150 of which were sold at $1,50 per bushel. The straw will sell for enough to pay for the labor of culture and harvesting,—so that the land may be estimated as yielding an income of $45 an acre; the manure applied having been made on the farm, of course, *costs nothing*. This we think a fair product, taking into view the quality of the soil, which has ever been looked upon as ordinary, scarcely worth owning. It affords a strong illustration of the benefits to accrue from the adaptation of the crop to the soil. If we do not mistake, there has been grown on the same farm ,for ten years last past, crops of rye, each year, varying from 30 to 45 bushels to the acre. Who will say that farming is not worth pursuing, when the poorest land can be made to yield such products? *.

August 20, 1855.

☞ By a census lately taken, the population of Minnesota Territory it shown to be about 45,000.

THOMAS TYTTE.

Not by the Author of "Thanatopsis," "Robert of Lincoln," and Minor Poems.

Fluttering nervously here and there
Round his lady bird—odd little elf—
Now on an iron weed—now in the air,
Thomas Tytte is describing himself.
Tom-tit, tom-tit,
Spit, spat, spit,
I and my wife in this here tree,
Live as jolly as ever you see,
Feedle, dee, dee.

T. Tytte, Esq., is drest in blue,
Like every other high-born tit,
With a yellow vest and a choaker too—
You'll hear him crow, if you listen a bit;
Tom-tit, tom-tit,
Spit, spat, spit,
Examine this coat and vest of mine,
I'm rather a buck in the tom-tit line,
Feedle, dee, dee.

The wife of Thomas, meek and brown,
A simple creature afeard of boys,
Sits all day in a high-necked gown,
Laying eggs without any noise;
Tom-tit, tom-tit,
Spit, spat, spit,
Lay on, my dear—nobody'll come;
I'm keeping watch in this old gum,
Feedle, dee, dee.

A very retiring female she,
A pattern wife, the dame-tits say,
Always blowing and bragging is he,
In the old established, masculine way,
Tom-tit, tom-tit,
Spit, spat, spit,
I'm not the bird to run, that's flat!
I'm too good stuff, you know, for that,
Feedle, dee, dee.

Heigho! look here! two, four, six, eight—
Round and white—remarkable eggs!
Mrs. Tytte watches them early and late,
While Thomas is laughing and kicking his legs;
Tom-tit, tom-tit,
Spit, spat, spit,
Convenient wife this Mrs. T.,
Feedle, dee, dee.

The eggs are chipped, and eight small tits,
(The number of eggs) creep cautiously through;
Thomas, driven half out of his wits,
Scratches his head to know what to do.
Tom-tit, tom-tit,
Spit, spat, spit,
Trying thing this—singular fate!
Unusual number, certainly—eight!
Feedle, dee, dee.

T. Tytte, Esq., in a little while,
Gets not as careful of his clothes,
Seems quite depressed—hath a sickly smile,
And singeth mostly through his nose,
Tom-tit, tom-tit,
Spit, spat, spit,
Exactly where the young ones be,
Nobody knows, 'cept wife and me,
Feedle, dee, dee.

Autumn comes, the titlets grow,
Thomas Tytte is a blockhead dunce;
To foreign parts he's going to go,
And just as he starts we cry all at once,
Tom-tit, tom-tit,
Spit, spat, spit,
If your voice comes back, and you're not shot,
You come back with it, Tom, otherwise not.
Feedle, dee, dee.

RHODE ISLAND STATE FAIR.

This exhibition took place at Providence, Sept. 11, 12 and 13. The weather was intensely hot, and the dust excessively annoying, yet the occasion was one of great interest, and was numerously attended. We were unable to attend, and must make up our account from the ample reports given in the *Boston Journal:*

The exhibition is held at the Washington Trotting Park, which is well adapted for that purpose. Seats for some twenty-five hundred persons have been erected, besides special platforms for the managers, reporters and music. Ample accommodations are also made for feeding the multitude, and in fact, all the details of the arrangements on the field show a wise judgment and discretion on the part of the Committee of Arrangements.

On entering the park, we found the cattle, poultry, &c., in their pens and coops, ready to receive their visiters. The poultry coops first came under our observation, and the fine birds in them showed that, notwithstanding Burnham's expose of the "Hen Fever," there are those who yet retain an interest in it. There were thirty or forty coops. The greatest curiosity in this department was a coop of Turkeys, to which there is a story attached which I will relate. They were owned by J. A. Chedel, of Barrington, and the story is, that the "gobbler" has himself raised two broods of young turkeys. His mode of family government is this: after his better halves have set upon the eggs, and brought the youngsters into the world, he very kindly takes the charge of the little ones, and sets his helpmeets at work laying another batch of eggs. Twice he has done this, and once he has gone even further than this—he has actually set upon the eggs, and increased the census of turkeydom by his own efforts. If the question of "Woman's Rights" has ever been agitated among the feathered tribes, certainly this venerable patriarch must be held in high esteem by the friends of this reform. I am glad the committee awarded him a prize of $5. May he for many years escape the perils of Thanksgiving.

The swine came next. The number was not large, but the quality was good. Chas. H. Hall, of North Providence, exhibited a sow, four months old, quite a pretty creature, with black neck and shoulders, the rest of the body being white; Adams Carpenter, of North Providence, a fine Suffolk sow, fifteen months old, and second to no other on the field; J. A. Chedell, of Barrington, exhibited an imported sow from Callao, with a family by her side. She was quite a neat looking animal; Orray Taft, of Providence, exhibited an imported Suffolk boar, seven months old. He gives promise of making a fine animal; James A. Potter, of Providence, showed a group of brothers and sisters, three months old, averaging 175 pounds weight each. They were fine animals. Mr. Wm. Nickle, of Pawtucket, exhibited a Suffolk sow, with a family of eight little ones, whose neat and thrifty appearance bore good evidence of the excellent qualities of their maternal ancestor. Taken as a whole, the exhibition of swine, though small, was very good.

We next come to the exhibition of cattle. And here we must mention one deficiency in the arrangements for the exhibition, which renders it impossible for us to mention in detail the cattle which are really worthy of special notice. The cattle were in the pens, and many of them were fine looking ones; but the names of the owners, the age and breed of the cattle, were not there. We could find no one—except in one or two instances—who knew anything about them. We are obliged therefore to speak in general terms. Of milch cows there was quite a large exhibition, and the collection embraced some as fine looking animals as we have ever seen. The Durham short horns predominated. We noticed one or two Ayrshires of more than medium excellence. Of working oxen the exhibition was not large. The cattle exhibited were in good condition, well trained, and showed good treatment on the part of their owners. In the pens for bulls were a few good animals. The best one was a noble looking, gray Durham bull, two years old, weighing 1460 lbs. He is owned by Wm. B. DeWolfe, of Bristol, and is as gentle and kind as a cosset. He is truly a splendid animal.

The display of young stock was not large. One or two bull-calves gave promise of making fine animals. The display of sheep was small, and not of sufficient excellence to deserve special notice.

The Plowing Match took place between ten and eleven o'clock, There were nine competitors, viz- five single and three double ox teams, and one horse team. The land plowed was very light and sandy, and so dry that the dust made by the turning of the furrows was a great annoyance. The work was done tolerably well, though it did not come up to the exhibitions in plowing by many of the County socieries in the Old Bay State. There was too much hurrying of the teams—a too free use of the whip and of the voice

The public exercises of this day closed with a lecture bp P. B. Johnson of Albany.

SECOND DAY.

Providence, Sept. 12, *P. M.*

The public exhibition of the society to-day commenced with a grand cavalcade of all the horses entered, at ten o'clock, under the direction of Col. Wm. P. Blodgett as Chief Marshal. The display was a most brilliant one. The line of horses and carriages extended about once and a-half around the track which is a mile in length. The cavalcade was led off by the stallions, of which there are thirty-six entries, and the list embraced some very fine horses. The Black Hawk and Morgan Breeds predominated. They were not, however, all on the track this morning in the cavalcade.

EXHIBITION OF STALLIONS.

Immediately following the cavalcade was the exhibition of Stallions, the premiums for which varied from $10 to $200. As I before remarked, there were thirty-six animals entered in this class, and nearly that number appeared before the judges, some led by grooms, some in trotting gigs and buggies, and others under the saddle. Any one who has any love for fine horses would have had his fill of enjoyment in witnessing the noble animals here exhibited.

EXHIBITION OF BREEDING MARES.

In this department there were thirty-three entries. I have not at present access to the entry books, and as the mares are designated only by numbers, it is impossible for me to speak of them only in general terms. Taken as a whole, they made a fine appearance. A few of them were superior. One fine animal exhibited was owned by Tristam Burgess.—

She is nineteen years old, and it is said can go her mile in three minutes, easy. She had four colts on the ground, the eldest four years old. The Committee to award premiums on this class will have to exercise a nice discrimination in the discharge of their duties.

EXHIBITION OF FILLIES.

At half-past one the exhibition of Fillies took place. There are but nine entered. They were generally fine animals, and give promise of making good horses. Two of them attracted particular attention. They were out of the mare of Mr. Burgess, noticed above, by "Matchless." They were faultless in appearance.

As I close at half-past two, the track is being cleared for the grand trial of speed for horses that never trotted for money—the owners to drive, and to be persons who have never driven for money. The first premium is $200; the second $100. Mile heats in harness; best three in five. There are thirteen entries for those purses. There is hardly a prospect that the contest will be closed before dark.

The attendance of spectators to-day is much larger than it was yesterday. The arrangements have been carried out in the most satisfactory manner by the Chief Marshal and his aids, and there has been neither accident nor disturbance to mar the enjoyment of the day. The music of the American Brass Band has been highly appreciated by the large assemblage. The weather has been very hot, and the dust outside the park almost suffocating. A shower during the night would be a great blessing.

The entries of horses up to noon to-day were as follows: Stallions, 36; breeding mares, 33; draft horses, 25; fillies, 9; family horses and roadsters, 103; matched horses, pairs, 38; fancy matched horses, pairs 8; ponies, 11.

Providence, Sept. 13.

When I closed my dispatch yesterday, the marshals were clearing the track for a grand trial of speed between horses which had never before trotted for money. There were thirteen horses entered for this trial, but only nine of them appeared on the track at the call of the Judges—who were Messrs. Wm. H. Gardner, of Providence, Col. Thomas Adams of Roxbury, Mass., and William D. Lewis of Philadelphia. At the time of the horses appearing on the track, the grounds in the vicinity of the stand presented a very fine appearance. There were not less than 4500 people on the ground and on the seats erected by the Society, and of this number one-fourth at least were ladies—who seemed to take a deep interest in the race. The horses which started were as follows:

Uncas,	entered and	driven by	S. Woodbury, Providence.
Bird,	"	"	A. C. Barnes.
Genesee,	"	"	A. Livingston, N. Y.
Young America,	"	"	H. T. Sisson, Providence.
Stranger,	"	"	William Barnet, Jr., Boston.
Sam,	"	"	L. Baker.
Messenger,	"	"	D. S. Dickerman.
Ned Lawrence,	"	"	H. C. Belden.
Susan Kennedy,	"	"	William Cunliffe.

After one false start the horses got off in good style, Genesee taking the lead and maintaining it handsomely to the close. Stranger followed him closely, but the rest were more than a hundred yards behind, and were distanced. The time was 2.48. The contest now was between Genesee and Stranger, the other horses retiring from the track. Genesee came home on the second heat in 2.47, leaving his contestant about a length, and on the third heat in 2.48, thereby winning the first premium of $200. Stranger took the second prize of $100. Those who are much better acquainted with horse-racing than I am, say this was one of the best contested races they have ever seen. The ease with which Genesee did his work excited the admiration of all.

After this race was decided, there was some fine trotting by several of the horses, which were distanced on the first heat. The sport was kept up till a late hour. Mr. Sisson's horse, Young America, beat all his competitors.

In all the crowd yesterday I did not see a drunken man, or an ungentlemanly act. This certainly speaks well for the good order and modesty of the people of Rhode Island. The rules of the Society are well calculated to preserve order, and they are admirably enforced by the Chief Marshal, Col. Blodgett, and his efficient aids.

EXHIBITION OF THE HORTICULTURAL SOCIETY.

The tenth annual exhibition of the Rhode Island Horticultural Society commenced in this city yesterday, and continues until nine o'clock this evening. It is held in Westminster Hall, a splendid room, well suited for such a purpose. The exhibition is pronounced to be the finest ever held by the Society, and shows that the interest which has within the few past years been excited in the culture of fruit in Providence and its vicinity, as well as in more distant parts of the State, is well kept up. It was quite an agreeable change, after being on the Park during the whole day, almost roasted by the sun and suffocated by dust, to go into this beautiful hall, filled as it was with the choicest offerings of Flora and Pomona, and with those still choicer and more lovely daughters of Rhode Island, whose beauty and accomplishments formed the chief attractions of the occasion. I had before heard an enthusiastic Rhode Islander boasting of the beauty and loveliness of the daughters of his native State. After the display I witnessed last evening, I shall not contest the point with him.

HOW TO COMMENCE BUSINESS.

Well, boys, we doubt not that you would like to rise high in the world, and become good farmers, merchants, &c. Here is a good motto for you—Begin at the lowest round on the ladder and keep climbing; and here is a story which will illustrate just what we want to say. One of the wealthiest merchants of New York city tells us how he commenced business. He says:—

I entered a store and asked if a clerk was not wanted. "No," in a rough tone, was the answer, all being too busy to bother with me—when I reflected that if they did not want a clerk, they might want a laborer; but I was dressed too fine for that. I went to my lodgings, put on a rough garb, and the next day went into the same store and demand if they did not want a porter, and again "No, sir," was the response—when I exclaimed, in despair almost, "a laborer? Sir, I will work at my wages. Wages is not my object—I must have employ, and I want to be useful, in business." These last remarks attracted their attention; and in the end I was hired as a laborer in the basement and subcellar at a very low pay, scarcely enough to keep body and soul together. In the basement and subcellar

I soon attracted the attention of the counting-house and chief clerk. I saved enough for my employers in little things wasted to pay my wages ten times over, and they soon found it out. I did not let any person about commit petty larcenies, without remonstrance and threats of exposure, and real exposure if remonstrance would not do. I did not ask for any ten hour law. If I was wanted at 3 A. M., I never growled, but told everybody to go home, "and I will see everything right." I loaded off at daybreak packages for the morning boats, or carried them myself. In short, I soon became indispensable to my employers, and I rose, and rose, until I became head of the house, with money enough, as you see, to give me any luxury or any position a mercantile man may desire for himself and children in this great city.

For the New England Farmer.

THE PLUM.

Many accounts of the failure of the plum crop have appeared in agricultural papers from various localities within a few years, and many methods of destroying the curculio or preventing their ravages, have been suggested. In many instances, the whole product of the trees drop prematurely, and flowering profusely in spring is no certain indication of an abundant harvest. In this immediate vicinity the plum has been nearly as productive as any other kind of fruit. For several years the curculio has not attacked them so generally, and many trees are now laden with fruit so as to require propping in order to prevent breaking down. The greatest obstacle in growing the fruit here is the rotting on the tree before ripening; this is the case with the Washington, Imperial Gage, and some others; many kinds are not affected in this way.

The plum is readily propagated by grafting or budding, and makes a rapid growth. I measured one shoot from a scion, which I set a few years since, which grew six feet six inches in one season; five feet is not an uncommon growth. The plum should be grafted as early as the season will admit, although it will succeed much later than the cherry. I have sometimes put in scions from the first to the middle of May which grew readily: the first part of April is perhaps the most proper time however.—The wild species, which grows abundantly in New York, and many other places, makes a good stock on which to engraft the finer varieties. There are many of these trees in this region which have been obtained from other places; they seldom produce any fruit here, and when they do, it is nearly worthless. I have grafted many of them which yield an abundance of fruit of superior varieties. The beach plum, which is found on the sea-shore of this State in various places, grows vigorously in the midst of drifting sand and the spray of the ocean, it has been said, will not succeed in the interior; it has occurred to me that applying salt in proper quantity might prove a remedy. O. V. Hills.

Leominster, 1855.

Remarks.—There is a single specimen of the beach or sand plum, *Prunus maratima*, near our residence at Concord, which grows vigorously, but is visited so much by children that no fruit ripens if it sets.

A MORNING AT NAHANT.

A few days since, upon the invitation of Mr. Tudor, we passed the morning at his place, and looked at his gardens, trees, fences and means of manuring and irrigation, and of his manner of cultivation.

Nahant is on the edge of Boston harbor, six or eight miles from the city, and connected with the main land at Lynn by a mere sand-beach. It extends into the sea in a south-easterly direction, is quite narrow—not over half a mile in width, we should think, where Mr. Tudor's cultivated grounds are situated—and receiving the full sweep of the easterly winds, which carry the salt spray half way to the opposite shore. The soil, generally, is thin, and rocks protrude everywhere. On the easterly side they stand in their naked majesty, where they have stood and breasted the battling waves through many decades of passing time. The promontory is rock-bound at every point, and probably was at some time as bare of soil as the rocks which stand at the base of the banks and receive the first shock of the ever-returning waters.

In such a poverty of soil, and with such visitations of fierce winds and salt water, it may well be conceived that vegetation would be slow, meagre, and of the hardiest kind. Yet, in such a place, *Science* and *Industry* have triumphed over every obstacle, and made the almost barren rock to blossom as the rose! Fields of corn and waving grain, trees of various climes, fruits, flowers, shrubbery and rich lawns, now meet the eye, where only desolation held sway but a few years ago.

Mr. Tudor found that trees, even those of a hardy character, would not grow, or scarcely live, swept, twisted, and coated by the salt carried in the sea vapor upon the powerful ocean winds, and he set himself to work to protect them. In this isolated position he had the grand and imposing elements of nature around him; Neptune held his trident upon the rocks and upon the sounding sea; but nearer the hearth-stone he wanted other deities, Flora and Pomona,

> "And wood-nymphs decked with daisies trim."

These he found could not be had without an amelioration of the climate. Cold winds, surcharged with acrid salts, must be kept out, while soft suns and gentle airs must be admitted to the plants. In order to effect this, he resorted to an expedient, perhaps never before employed, and one which has so far *changed the climate* of the locality, as to enable him to rear tender plants and produce fruits, scarcely attainable in sheltered spots several miles in the interior, or one or two degrees further south.

Around one garden he has erected fences from ten to twenty feet in height, made of common laths nailed to strong cross-pieces, and leaving interstices about two inches in width between them. Around another garden the fence is brick, the brick being made of only half the usual thickness; the first five or six feet in height of the fence is close, and the upper portion full of holes about two inches square. These fences so break and sift the winds as to deprive them of all power either of straining the trees, or of conveying the salt vapors to their foliage. At the same time the temperature is so changed, that several degrees of difference in the heat and cold may be noticed between the inside and outside of the enclosure. Frost penetrates three or four times as low into the ground outside as it does inside. In a cold day, there is a genial, summer-like atmosphere in the garden, when out of it, November winds may howl along the coast with icy breath.

Under this change of temperature Mr. Tudor has succeeded in clothing the surface with rich varieties of plants, and giving all that part of the promontory a most attractive appearance. Pear trees, only transplanted four years, were above the highest fences, and loaded with fruit. There we saw several of the Northern Spy apple trees fruited in perfection, tender raspberries, and nearly all fruits found in our best gardens. In all, Mr. Tudor has set *ten thousand* trees among the rocks and on the handful of soil which he could come at where he desired to plant; so that now the strong currents being broken and evaporation in a measure retarded, vegetation will spring into life spontaneously, and trees of a less hardy character than those he commenced with will succeed. He has given a new aspect to the scenery, and a new health to the place. Thousands who throng there for gay dissipation or for the invigorating breezes from the sea, are grateful for the shade of his trees, and for the rich landscape which is so admirably contrasted with the expanse of water and the rough rocks which line the shores, or still lift their heads in the cultivated grounds. So *Science* and *Industry* have covered desolation with beauty, and crowned the efforts of their votary with *Success!* His noble example is widely felt, and other cultivators take the hint from his operations, and break the wind from their gardens by means of shrubbery or of fences, and thus are enabled to rear plants which it would otherwise be impossible to do, and this will be the means of introducing earlier and a greater variety of fruits, throughout New England.

Mr. Tudor has distinguished himself no less in another branch of industry, than by his horticultural skill. He was the first person to introduce a business which now employs some seven or eight million dollars of capital, and for which he was laughed at by all the *doubters* in the land. He shipped the first cargo of ice ever exported from this country, in the year 1805. It was shipped to the West Indies, and he went with it. The enterprise was not a profitable one, there being no suitable places to store it, and its efficacy in sickness, or its value as a luxury, not being appreciated. In 1834, Mr. Tudor commenced realizing a profit from the business, but two years earlier he shipped from Boston 4,352 tons.

Mr. Tudor's efforts are a practical illustration of what industry and perseverance may accomplish, especially when aided by the application of science. The pleasure of our visit was increased by the presence of His Excellency the Governor of the Commonwealth, whose own grounds we had previously visited, and found stocked with some nine or ten hundred fruit trees, and embracing most of the best fruits produced in our climate. The day, thus spent, was a most agreeable and profitable one. Mr. Tudor has proved a public benefactor in several ways, and while he has our hearty commendations, we are confident he has those of the public at large.

WAKEFULNESS—CAUSE AND REMEDY.

EDITOR OF THE RURAL:—Many persons of nervous temperament,—hypochondriacs with uneasy stomachs, from the use of too much rich and highly-seasoned food, knick-nacks, or tea and coffee,—the thinkers, inventors, authors, and those who have domestic or other troubles pressing on the brain; in fact all who are not of mere animal construction and of redundant health, are subject more or less to *wakefulness*, and a difficulty of obtaining that repose necessary to reinvigorate the system, after the labor and cares of the day. It becomes a disease, and sometimes as distressing as "the snakes in the boots" of the inebriate.

What is more tedious and enervating than the difficulty of procuring sleep, or of waking and waiting for the sonorous bell of the clerk of time, and after hopelessly trusting it will proclaim the approach of day, hearing him bluntly tell all he knows by striking *twelve?* Then, the melancholy hours passed in solitude and thick-coming thoughts of real or anticipated troubles and cares, are painful is the extreme, and disorder the whole vitality of the animal machine.

Many devices have been suggested to bewilder the mind and induce the lethean forgetfulness of sleep. Counting up to hundreds—multplying two or more numbers in the mind and obtaining the result—calling over the names of acquaintances, or the counties in the State, &c. The most effective course is to jump out of bed and commence walking in the dark, exercising your judgment in avoiding and in finding objects about the room, taking no heed what the matter is; its effect is to break the chain of thought — dispel vapors — equalize the circulation and disperse the electricity of the body, which the bed, being a non-conductor, cannot do. The antagonism of the warm bed and cold air gives a shock to the nervous system, acting like a cold bath, which it is, only air instead of water. On getting into bed a pleasant glow is felt, and in nine cases out of ten the brooding nightmare of wakefulness is driven to the land of Nod, and forgetfulness and refreshing sleep ensue.

No one can take cold when every part is equally exposed; the most delicate constitution may run naked a mile in the greatest rain or snow storm and if they do not freeze, no ill effects will follow. It is partial exposure that deranges the system and creates the colds, lung complaints and rheumatisms of life. Baptism by immersion is a case in point and the thousand accidents by flood and storm; while a spoonful of water in the shoe, or damp feet, or sitting by a cracked window-light, gives a cold that costs life. The only precaution is to keep moving; exercise and motion and a will, can carry the person safely through almost any exposure.

It is a simple experiment, and the fees for advice —gratis.—*Rural New-Yorker.*

For the New England Farmer.

TASTE IN RURAL AFFAIRS.

To render the country tolerable to a resident who makes it his home throughout the year, he should take an interest in a garden, especially a fruit-garden. Flowers and vegetables are transient; they cannot in their nature excite that interest that new and rare kinds of fruit trees do when coming into bearing. In a fruit-garden or orchard, every additional year gives to it some new phase or lends to it some new enchantment or value. And besides the anticipated pleasures which are awakened from year to year, there is the real substantial delight of gathering and eating fruit from your own trees, rendered dear to you from the care which you have bestowed upon them. These pleasures are among the purest and most enduring known to civilization.

To a man of sense and reflection, the real poetry of life is in the country. The monotony of city life is proverbial. Brick and stone, human faces and merchandise, is the sum of all that can be seen. Public trees are rare, and private ones tremble lest the invigorating sun another season shall be forever shut out, or the speculator's axe laid at their roots. The seasons, too, present but little change, as everything is artificial. But the country exhibits an infinite variety of landscape, and at every step we take, new objects arise, and the vision perpetually changes. Spring and autumn present marked contrasts, and summer and winter possess hardly a shade of resemblance. But to the lover of nature they differ but little in interest and beauty, as his heart recognizes their necessity, and his eye surveys them with veneration.

In proportion to our knowledge of and taste in horticulture is our pleasure. An acquaintance with its kindred sciences—chemistry, geology and mineralogy — adds great interest to the subject. The tasteful gardener not only wishes to make his garden yield well, but he seeks to arrange his avenues and plant his trees in accordance with economy and landscape beauty. A variety of soil is fitted for a variety of trees. Some need a strong soil, others will flourish on a light. The Williams apple and the Roxbury Russet, for instance, require the former; the latter will answer for peach trees, and for some apple trees, among which is the Baldwin. So also in planting forest trees, a contrast in foliage and shape is pleasing to the eye. The Abele near a purple-leaved Beech, the European Sycamore with Elms, the Tulip tree and the Alantus, look finely together, when trees are not required to be matched or planted in couples, for some particular effect, for instance, in forming a vista; and even then they could be alternated in couples. Perhaps there is no vocation in which so great a variety of taste can be displayed as the landscape gardener's; and this is why no definite rules can be laid down for its development. The position, extent and surface of the ground, must in all cases suggest the style of embellishment.

But the idea that taste in the arrangement of the avenues, embankments and trees around a house greatly enhances the satisfaction of its owner, never seems to enter the mind of some who go to much expense on their estate. If you make suggestions of improvement, they will perhaps think them "first-rate," and wish they had adopted them. They seem to be devoid of any kind of taste upon this subject, yet admire what others can do. They appear to look to profit; but profit is not necessarily opposed to good taste. If they wish to set out a particular tree, they put it where there is the most room to spare, regardless of its effect on the landscape. Pig-pens, hen-coops and dog-houses are set near the dwelling, in defiance of all arrangement, for the sake of having them "handy." And throughout the entire gardens of such tasteless individuals the "law of disorder" reigns supreme.

The villages of the present day are of a different character from those which our forefathers founded, and in which they lived and flourished. In the primitive times of New England, a grist-mill situated on a stream in some valley, furnished the nucleus of many a flourishing village, and little or no regard was paid to embellishment. Instead of planting trees, the mission of the people seemed to be to cut them down. But villages now are spread over the broad swells and extended plains, and where the proud forest trees were once laid low by the axe of the pioneer, the hand of taste seeks to reinstate them. Since New England has become populous and thriving, we covet retirement away from the thoroughfares of business; and instead of erecting dwellings within ten or fifteen feet of the ruts of the road, with a cherry tree and lilach bush between, we place them remote from noise and dust, and by a discriminating arrangement of flowers, shrubbery and trees, lend enchantment to their view. This is leaving a "mark in the world" which posterity might well emulate. D. W. L.

West Medford, Sept., 1855.

For the New England Farmer.

THE DROUGHT.

It is a common thing to hear it said, "I never knew it so dry before." This was often heard in the season of 1854. Whether it has been heard the present, I will not say—but this I can say, that I have not known the time when it could be uttered with more propriety. Vegetables that were growing luxuriantly on the first of the month, are now shrivelled and fallen—I fear to rise no more. Corn that had not then attained its growth, is now hesitating to fill out. The only thing that gives indications of improved condition is the potato—this is better than was feared—the rot *is stayed* or not gone ahead.—Whether it was checked by the want of moisture, or the cold nights that we had, or some other cause, it is certainly less than there was reason to apprehend. Although there have been more numerous rains, since the first of April, than in most seasons—still I do not remember the season, when the quantity taken together has been so little. The consequence is, the springs are very low indeed. ESSEX.

Sept. 10, 1855.

STUDY OF AGRICULTURE.

We have inserted in the appropriate department of this paper, and shall transfer it to the columns of the monthly *Farmer*, the advertisement of Prof. NASH, in relation to a more thorough pursuit of agriculture in Amherst College, than has yet been afforded in New England. It is encouraging to notice this movement on the part of the Professor and the College, as a way will now be opened to pursue the subject with success.

The particular attention of our young friend, "B. T. R.," of Newburg, Orange Co., N. Y., is called to this advertisement, and the remarks which follow. Prof. Nash says:

"The young men will have access to the college library and cabinets, the latter of which will be of great value to them, as also to several able and most valuable courses of lectures. It is our purpose to attend these lectures with them, to bring to the recitation room the scientific facts there demonstrated, to dwell upon them in a way calculated to aid the memory in retaining them, and to point out, more carefully than a rapid lecturer would be likely to do, their useful applications. With such aids as the college offers, we think that, without boasting, we may promise as rich privileges as can be enjoyed anywhere.

Lest there should be a lingering doubt of the readiness of the college to extend its privileges as above stated, we will here say, what we know to be true, that all the gentlemen connected with its Instruction—the President, Ex-President Hitchcock, and the entire Faculty—are moved by the most liberal views in this matter. With no relaxation in the field of Classical and General Literature, they deem that the facilities of the Institution for diffusing useful science may be extended to young men, who wish to attend for a less time than four years, perhaps but a few months; and they are sincerely desirous of so extending them; and accordingly have made such arrangements that the student of twelve, six, or even three months' attendance, may enjoy as rich privileges for the time, as those who prosecute a four years' course."

For the New England Farmer.

"STATE OF MAINE POTATO."

MR. EDITOR:—I am happy to find an *endorser* for the *State of Maine* potato, so experienced, as your correspondent from "Newton Centre" professes to be, having cultivated the present season, as he says, "not less than seventy-five varieties." This is indeed a large experience, demanding much discrimination in the different sorts. He expresses a doubt whether I have ever seen "the true State of Maine potato." It may be that I have not. My remark was not made so much on my own observation,—as on that of "the best observers"—such as the President of the Massachusetts Horticultural Society, who is not only a discriminating observer, but a most reliable man, in all respects—none more so among us.

If my recollection is right, a few years since, I saw remarks from the same correspondent, speaking disparagingly of the "Eppes Sweeting," or "Danvers Winter Sweet," as unworthy of cultivation. I know that what he then said about this apple is a mistake. I therefore have less confidence in his high-wrought encomiums of this variety of potato. I admit, that I have heard it highly extolled by others, who had bought a few for seed, at extravagant prices, and were cultivating them with a view to get their money back again. How far your Newton correspondent may be swayed by any such consideration, I have not the means of determining. SOUTH DANVERS.

Sept. 15, 1855.

For the New England Farmer.

HIGH PRICES OF FLOUR AND GRAIN.

MR. EDITOR:—In some of the papers I have noticed of late movements by the citizens for supplying themselves with the necessaries of life, by combinations in purchasing. This movement appears to me as one worthy of all commendation, and easily adopted by mechanics very generally, as well as by others. If there is any truth in the different newspaper statements for the past two months, there is no good reason—not one—why the article of flour should command ten or thirteen dollars per barrel. There cannot be any other reason, than that the article is in the hands, and managed by speculators; and it is easy for the community to see how this is done. It is a most shameful piece of imposition upon the public—more particularly the laboring part—to call it by no milder name. With the whole country—according to public accounts—overflowing with the staff of life, and to be obliged to pay 10 or 13 dollars a barrel for flour, is an anomaly and an outrageous imposition. I would say to the mechanics and laboring class of the people, *combine*, let combination meet combination—if this shameful business of speculation in the very essentials of life cannot be stopped in any other way. You have the means of relief partially, if not wholly, in your own hands, and do not fear no use it, even if you gain but little thereby to your purses. Provided this species of *crime* can be broken up, a great good will be accomplished, not only to yourselves and families, but to the community at large. The Union Stores which have been established throughout the different towns in New England, within the past three years, have been a great benefit to the laboring classes, there cannot be any question about it; thousands and tens of thousands of dollars have been saved to your pockets within the above time, by this class of stores. Why not a community, or a town, supply themselves, on the same principle, with flour and grain? You can do it, and if judiciously managed, it is easily accomplished, and with little trouble or expense to yourselves, except for the first cost of the articles. In this movement, you would have the sympathy and good wishes of the larger part of the people. This alone is a great deal. Let ten, twenty, fifty or a hundred families in a town unite and put into a general fund for the purchase of flour and grain. You can easily find a person to do the rest of the work for you, and who will do it well, too, for a very small commission. To say the least, this subject is worthy of more attention than it has received from this class of our people; if they know their power, they have not used it. "But I say unto you fear not," try it, and note results. Even if you fail in the attempt, it will not be the first time people have failed in a good cause, and perhaps some wise and valuable lessons will be learned thereby.

"Be sure you are right—then fear not to go ahead," and God bless you. N. Q. T.

East Weymouth, Sept. 11th, 1855.

THE FARMER'S LIFE FOR ME.

BY HENETTE.

Wealth may boast her hoarded treasures,
Pride no joy like her's may see,
Dissipation vaunt her pleasures,
Yet the farmer's life is the life for me—
With its freedom blest,
From the stern unrest
Of the crowded marts of life,
With its rosy health,
What a mine of wealth!
With its quiet unmarred by strife.

Toil it hath, yet with it there is
Sunlight of a willing mind,
And the farmer's home so fair is,
None a fairer e'er can find—
With its glowing hearth,
With its heartfelt mirth,
When the winter fire burns bright;
O, the farmer's cot
Is a cosy spot
In a chill December's night.

His are Summer's richest treasures,
All her wealth of fruit and flowers,
All the intellectual pleasures
Of her bright instructive hours,—
His the golden gleam
Of the sunset beam,
And the mild majestic night;
His the first soft ray
Of the rising day,
And the dew-drops sheen and bright.

Far from heartless Fashion's empire,
Far from Mammon's haunts of sin,
From the dens of Dissipation,
And the crowded city's din—
He may safely rest,
O, how truly blest,
With the friends he holds most dear—
And the great world's noise
Cannot mar his joys,
In his calm, secluded sphere.

Michigan Farmer.

For the New England Farmer.

HARVESTING CORN.

Mr. Editor:—As the time is close at hand for the farmer to be devising and adopting the best method by which his corn crops may be secured in the best manner and to the best advantage, I thought a few words written upon the subject might not come amiss, and be acceptable too.

It is well known that there are many and various ways pursued by farmers in harvesting this, his most important crop; some take one way and some another, and therefore it would be well to adopt the best plan both as regards the grain and the stover.

In a communication in your paper of August 25, a writer, who signs himself "E. C. P.," says, "all good farmers will cut up their corn directly after it is out of the milk, and 'stock it' to dry; then, after a reasonable time will husk it and put the stover away in the barn, where his stock in the winter will prefer it to the best English hay." Now with all due deference to his opinion, I must say that all good farmers will *not* pursue such a course in the harvesting of their corn for good reasons: for who does not know that corn so treated would result in the shrivelling of the grain in a great degree, and consequently in the loss of its vitality? If "E. C. P." should cut up his popping corn in the manner he speaks of, I rather think that the portion of his corn that would "pop" would be small indeed, because it would be deficient in that oleaginous substance he so highly extols—the nutritive matter that forms the "unleavened bread."

The best way for farmers to manage their corn, which is usually done by the most of them, is, about the second week in September, when the tassels are dry and crumpy, to cut off the tops, and lay them in the hills so they will not touch the ground, then after having dried one or two days, tie them up in small bundles, and stand them up firmly against the corn and let them stand for a number of days if the weather will permit, and then put away in the barn. The tops of corn secured in this way makes good feed for cows in the winter, and is no small item in their keeping. Although it is valuable for the purpose of feeding stock, it will not do for the sake of the stover to sacrifice the corn, as no farmer will do that, unless he goes on the principle of "robbing Peter to pay Paul." Every one that raises corn, will of course, secure it as he can best, and as shall result in the best good of the whole. J. Underwood.

Lexington, Mass., 1855.

APPLES—WINTER KEEPING, ETC.

Prof. J. J. Mapes:—Sir,—A constant and interested reader of the *Working Farmer* would be pleased to see appear in the columns of the September number, if possible, an article upon the Sweating of Apples, describing the process, &c. Also the best method of packing fruit for shipping.

Truly yours, J. C. K.

Dunstable, August 9th, 1855.

In reply to the above we would state, that the finer class of fruit should be gathered by hand, and so placed in barrels, and not poured from a basket, as every apple slightly indented will be sure to decay. When apples are intended for shipment, another process seems necessary.

Apples contain a large amount of water, part of which should be got rid of, when intended for shipment, and this may be done without any alteration in the figure or appearance of the apple, provided that they receive no indentations or bruises.

They must be placed in heaps, when a slight sweating will occur, which will cause a portion of the water to exude to their surfaces and dry off. After a short time a second sweating will occur. They should then be thoroughly dried, placed in barrels by hand, and shipped. Apples so treated, if they arrive at their port of destination before the third sweating takes place, will be in perfect order; but if a single apple in a barrel be dented or bruised, it will cause the whole to decay or partially decay, on ship-board. This third sweating usually occurs in about six weeks after the second sweating. For home consumption, apples should be taken from the tree as late as the weather will permit, and should be placed in the final place for winter keeping, at once. If put on the north side of a house with board covering, and suffered to remain until the cold becomes very severe, they may then be moved in dry, clear weather, and placed where they are intended to be kept; and if in barrels, these should be kept as dark as possible. Some have packed apples in charcoal dust, others in alternate layers, with straw and a layer of earth, in the same manner as for potatoes. Some place them in cold, dry cellars, in heaps, covered with straw; but all these methods, while they may sometimes succeed, invariably abstract so much of the flavor from the apples as to lessen their real value. The same mistake is often made in packing grapes in cotton—and while they maintain their figure and look well, the aroma is abstracted and absorbed by the cotton.

The plan given above for preparing apples for shipping, first made public by R. L. Pell, Esq., is the most dependable.—*Working Farmer.*

For the New England Farmer.

POTATO CROP.

Mr. Editor:—In your paper of September 1st appears an article from one who signs himself "South Danvers," bearing the title that I have selected. He says, "of the new varieties of potatoes that have been tried in this vicinity, the present season, there is none so highly praised as Davis' Seedling; side by side with other varieties this escapes disease entirely. Some pretend to crack up the 'State of Maine' potato—but the best observers say it is a miserable concern—entirely unworthy of regard."

Now I agree with him exactly in what he says of the Davis' Seedling; it is a very fine variety, deserving of extensive cultivation—very productive, hardy, and a good-flavored sort. In regard to what he has to say about the *State of Maine*, the reverse is eminently true; the statement he has made is calculated to mislead the public in respect to this splendid variety of potato. It is, in the first place, very productive, yielding this year a bushel of handsome potatoes from eighteen hills; it is early, being nearly as early as the White Chenango, which is the favorite early sort of the market gardeners; it is very handsome, being perfectly white outside and inside; as for its eating qualites, it is unsurpassed by any variety that I am acquainted with, and I think I may, without boasting, lay claim to some knowledge of potatoes, having for some years felt a great interest in the potato, and planting every named sort that I could get, besides raising a great many from seed, so that my list numbers, this year, not less than seventy-five varieties. It is not surpassed even by the famous Carter potato, which has such a high reputation, and if your correspondent will produce a potato equal to the State of Maine in *every respect*, I will send him as many potatoes as he will use for five years. It is not liable to rot, having never found but few rotten potatoes among that sort. I am inclined to think that "South Danvers" has never seen the true State of Maine potato, or is radically mistaken in regard to it.

James F. C. Hyde.

Newton Centre, Sept. 6, 1855.

The History of Butter.—From the various statements in history, it may be safely concluded that the discovery of butter is attributable neither to the Greeks nor Romans, but that the former were made acquainted with it by the Scythians, Thracians, and Prygians, and the latter by the people of Germany. It appears, says Beckman, that when they had learned the art of making it, they employed it only as an ointment in their baths, and particularly as a medicine. It is never mentioned by Galen and others as food, though they have spoken of it as applicable to other purposes. No notice is taken of it by Apicius, nor is there anything said in that respect by the authors who treat on agriculture, though they have given accurate information regarding milk, cheese, and oil. This may be easily accounted for by the fact, that the ancients were entirely accustomed to the use of good oil. In like manner, butter is very little employed at the present day in Italy, Spain, Portugal, and the southern parts of France, but is sold in the apothecaries' shops for medical purposes. During the ages of paganism butter appears to have been very scarce in Norway; mention is made by historians of a present of butter so large that a man could not carry it, and which was considered a very respectable gift.—*Farmer's Magazine.*

For the New England Farmer.

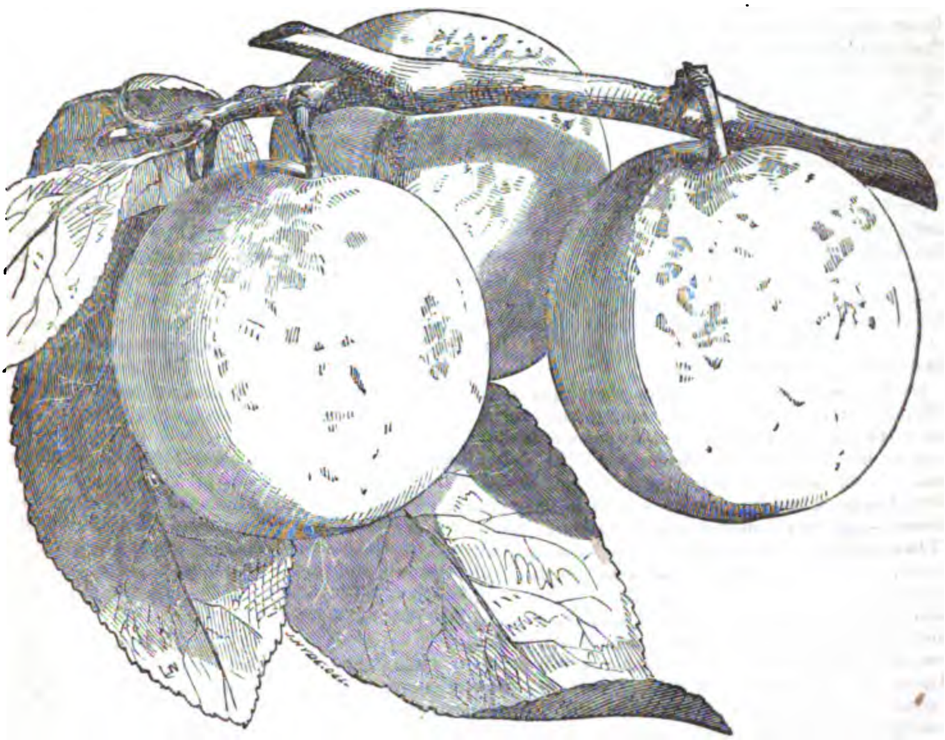
CONSOLATION FIT FOR AN EMPEROR.

In the memoirs written by the celebrated Emperor Khang-hi, the following passage occurs:

"I was walking on the first day of the sixth moon, in some fields where rice was sown, which was not expected to yield its harvest till the ninth. I happened to notice a rice plant that had already come into ear. It rose above all the rest, and was already ripe. I had it gathered and brought to me. The grain was very fine and full, and I was induced to keep it for an experiment, and to see whether it would retain, on the following year, this precocity, and in fact it did. All the plants that proceeded from it, came into ear before the ordinary time, and yielded their harvest in the sixth moon. Every year has multiplied the product of the preceding, and now for thirty years it has been the rice served on my table. The grain is long and of rather a reddish color, but of a sweet perfume and very pleasant flavor. It has been named Ya-mi, or "Imperial rice," because it was in my gardens that it was first cultivated. It is the only kind that can ripen north of the great wall, where the cold begins very early and ends very late; but in the province, of the South, where the climate is milder, and the soil more fertile, it is easy to obtain two harvests a year from it. And it is a sweet consolation to me, to have procured this advantage for my people."—*Huc's Chinese Empire.*

Huc remarks, that this species of rice succeeds admirably in dry climates, and has no need, like common rice, of perpetual irrigation; and that it is not the fault of the missionaries if it has not long since been acclimated in France.

Apples, Pears and Plums.—Our acknowledgments are due Mr. William Wheeler, of Acton, for a basket of fine Porter apples, and another of Bartlett pears; to E. W. Bull, Esq., of Concord, for fine specimens of the Washington Red Gage, and other plums, and to his Excellency Gov. Gardner, for a liberal basket of the Tyson pear, grown upon the first tree producing that fruit in New England.



THE WASHINGTON PLUM.

We give above a most faithful representation of this excellent plum. The fruit represented grew in the grounds of E. W. BULL, Esq., of Concord, the originator of the celebrated "Concord Grape." It is part of a branch containing five plums within the space of six inches, and weighing 11½ ounces, or nearly 2½ ounces each. The drawing was designed by Mr. JOHN N. HYDE, a young artist of great promise, and the engraving executed by Messrs. SMITH & PEARSON, both parties having their place of business at 46 Court Street, Boston. The connoisseur will find this illustration one of great truth and beauty, and it is our intention that he shall frequently find our columns enriched with similar beautiful specimens of the skill of our artists.

The description of the plum we give from DOWNING:

The Washington undoubtedly stands higher in general estimation in this country, than any other plum. Although not equal to the Green Gage, and two or three others, in high flavor, yet its great size, its beauty, and the vigor and hardiness of the tree, are qualities which have brought this noble fruit into notice everywhere. The parent tree grew originally on Delancey's farm, on the east side of the Bowery, New York, but being grafted with another sort, escaped notice, until a *sucker* from it, planted by Mr. Bolmar, a merchant in Chatham Street, came into bearing about the year 1818, and attacted universal attention by the remarkable beauty and size of the fruit. In 1821, this sort was first sent to the Horticultural Society of London, by the late Dr. Hosack, and it now ranks as first in nearly all the European collections.

The Washington has remarkably large, broad, crumpled and glossy foliage, is a strong grower, and forms a handsome round head. Like several other varieties of plum, the fruit of this, especially in sandy soils, does not attain its full perfection until the tree has borne for several years. We have measured them very often six inches in circumference, and once from Mr. Bolmar's original tree, seven and a quarter inches.

Wood light brown downy. Fruit of the largest size, roundish-oval, with an obscure suture, except near the stalk. Skin dull yellow, with faint marblings of green, but when well ripened, deep yellow with a pale crimson blush or dots. Stalk scarcely three-fourths of an inch long, a little downy, set in a shallow, wide hollow. Flesh yellow, firm, very sweet and luscious, separating freely from the stone. Stone pointed at each end. Ripens from about the middle to the last of August.

VERMONT STATE AGRICULTURAL FAIR.

Rutland, Vt., Sept. 11—6 *A. M.*

The exhibition grounds are located on Grove Street, about a quarter of a mile north of the depot. They comprise about thirty acres, and are admirably calculated for the purpose to which they have been devoted. On a portion of the lot near the street is a beautiful grove of maples, beneath whose grateful shade Floral and Mechanic Halls have been erected. These halls were improvised for the occasion, being built of rough boards, Floral Hall being very neatly decorated with evergreens, &c., presenting quite a rustic appearance. A portion of the cattle pens are also included within the shady area. The race-course, for the exhibition and trial of horses, is a little further on, and is half a mile in length. A fine gallery, capable of seating a large concourse of spectators, fronts the course, and affords a fine view of the contests of the turf.

Up to five o'clock last evening there had been entered for exhibition in the equine department, ninety-two geldings and mares, thirty-one Hamiltonians, fifty-six Sherman Morgan or Black Hawk stallions, six Bullrush Morgans, thirty-two Woodbury Morgans, and twenty-three pairs of matched horses—total two hundred and sixty-four. Some of these animals are of almost matchless beauty and speed. The Black Hawk blood predominates, and if elegance of outline, grace of action and spirited movements can make one class of animals favorites more than another, surely the Black Hawk horses are not undeserving of the partiality shown them. There are, of course, beautiful horses of other breeds on the ground, which are dangerous rivals, but for myself I must confess to quite a partiality for the light, glossy black steeds of the Black Hawk breed.

Among the fast horses entered are the "Michigan Boy," "Flying Morgan," and "St. Lawrence," whose names are quoted in sporting circles. There was a good display of trotting horses on the course yesterday afternoon, and the attendance of spectators was quite large, some fifteen hundred to two thousand being present, many of whom were ladies. Major John S. Dunlap is Marshal of the field. Some of the trotting was quite smart, and the excitement in this part of the show is fast increasing.

In the neat stock department there have been entered 19 yokes of working oxen; 9 yokes of steers; 6 cows and three bulls of Hereford stock; 3 native cows; 5 cows and 2 bulls, Ayrshire; 12 cows and 10 bulls, Devon; 6 bulls and nine cows, Durham; and 28 cows and seven bulls, mixed breeds. All these cattle are fine specimens of Vermont breeding and keeping. I have not seen an ill-looking animal among them, while many are very superior; and there is good reason for it, for nowhere is there better grazing than on the verdant hills of Vermont, while the breeds are the same that bear the palm throughout New England.

Of sheep, there is, of course, a large collection, for Vermont is almost as celebrated for her flocks and herds as for her horses. There are on exhibition three pens, containing 25 ewes each of Spanish Merino stock, besides 32 bucks and 118 ewes and lambs of the same breed; 17 bucks and 78 ewes and lambs of the French Merino variety; 81 long wool sheep, mostly Leicester and Cotswold; and 28 fine wool sheep of mixed blood. These sheep are outwardly a most unlovely looking set of animals, their shaggy coatings being covered with a thick layer of dirt, which gives them a forbidding appearance; but upon separating the matted locks, a soft and snowy-white staple is brought to view, which will no doubt some day be transferred from the back of the poor sheep to adorn, in the form of a shawl, the person of some fair lady, or, made into broadcloth, will be sported by "genteel" young men on fashionable promenades.

A glance at Mechanics' Hall yesterday afternoon showed a goodly array of useful inventions in the mechanic arts, embracing not only the useful agricultural implements, but some fine specimens (mantels tablets, &c.) of Vermont marble, of which there is a quarry in the western part of this town; also handsome specimens of natural and marbleized slate, from West Castleton. The natural slate was displayed in a variety of forms, such as sinks, boxes, &c., while the marbleized was wrought into ornamental tables, mantels, &c. They were quite handsome, but the native marbles, of course, outshone them. I noticed an amusing contrivance attached to a bedstead, to facilitate early rising. An ordinary alarm clock is appended to the headboard, which arouses the sleeper at the appointed hour, and allows him a few minutes to "open his peepers" and get out of bed; but, if he is sluggish and delays this unpleasant operation too long, a secret spring is moved, and presto! the astonished sleeper feels the bed settle sideway under him, and he is rolled incontinently upon the floor!

Rutland, Sept. 12.

To-day there is a great accession to the number of people in attendance on the Fair, and throngs are arriving by every train and by private conveyance. The town wears truly a holiday appearance. The day is clear, although warm, and nothing interposes to mar the pleasure of the occasion. Visiters began to throng the Fair grounds at an early hour, paying thenty-five cents for admission, and by noon there were fully four thousand people present.

I have omitted to speak of the display of articles in Floral Hall, which is devoted to fruit and ornamental articles, furnished by the ladies, in the hope that it would fill up with a class of specimens commensurate with the occasion. But I have been disappointed. There are but three or four lots of ordinary fruit, and although the ladies have contributed some handsome fancy articles and a few crayons, most of the articles are scarcely worthy of notice; consisting of daguerreotypes and shop goods. Any of the county shows in Massachusetts would be ashamed of such a display of fruit, and the ladies "wouldn't begin" unless they could do better in articles of taste and elegance.

I am sadly disappointed, too, in the agricultural department. A one-horse wagon could contain all the vegetables shown. Of butter, and cheese, also, for which Vermont has much celebrity, there were not more than a dozen specimens of each. I expected to see a sight in these departments to "tell of." But these Vermonters think so much of horses, sheep and cattle, that other things stand a poor chance at their fairs. The same may be said of the spectators. Almost all flock to the race course to see the horses, scarcely deigning to look at the cattle or sheep, although Floral and Mechanics' Halls have a few visitors. The paucity of the above departments, however, probably is not owing to a lack of material, but of interest. It ought not so to be. Vermont, as everybody knows, can raise as good vegetables, and has as good dairies as any State in the Union.

I noticed in the sheep department this morning a fine lot of French merinos, exhibited by A. L. Bingham, of West Cornwall, Vt. There were about seventy of them, bucks, ewes and lambs, and as fine stock as one would wish to see. Some of the bucks which had missed one shearing had wool from two to five inches long, and a beautiful staple.

At 9½ o'clock, the horses entered for premium in the different classes were brought on to the field for inspection by the committees. A large concourse of people were in attendance, and the scene was a gay one, truly inspiriting to the lovers of equine display. Many fine animals were trotted on to the ground, and their good points set off to the best advantage. Just before the committees took their stations, the venerable Nathan Lounsbury, of Clarendon, aged one hundred and one years, rode over the course in a handsome barouche, and was heartily cheered by the spectators.

An exciting incident occurred during the exhibition upon the track of all the horses entered. It seems the owner of one of the horses which was attached to a gig, entrusted him to the care of an Irishman, who being disposed to exhibit his talents as a "whip," struck the nobler animal of the two a violent blow with his whip. The horse sprang forward, and Pat not being accustomed to trotting gigs, lost his balance and fell backward to the ground. The horse ran directly towards the stand, in front of which was a great crowd of men and women, scattering them in every direction. Directly in front of the stand the runaway came in contact with Mr. Maynard's carriage, overturning it instantly. Mr. Maynard was thrown out and barely escaped being trampled under foot by the now frantic animal. The horse was then caught, but another horse was "making tracks" on his own responsibility. Attached to Mr. Maynard's carriage was the beautiful Black Hawk, which has attracted so much admiration, during the Fair, and which is owned and kept by Mr. M., in Lowell, Mass. On this occasion he was driven by Mr. Crandall, of Brattleboro', who clung to the reins manfully, and was dragged several rods upon his back, when he was obliged to relinquish his hold. The horse then ran across the field, knocking down and running over a man, and injuring him very severely. He then came upon the track again, when the carriage was caught by a post, and was almost entirely demolished. With the fragments hanging about him, he again ran past the stand, and soon came in contact with another horse and sulky, (which with the most culpable negligence had been left alone by the driver,) and overturned it—of course starting its horse into a run. The Maynard horse was shortly after caught by the harness in a fence, and secured, while the other was caught by a man who had the boldness to seize him by the bridle as he ran past him. Considering the great crowd upon the ground at the time, it is truly wonderful that many were not severely injured.

We take the above account from the Boston *Journal*. The reporter uses a free pen in regard to some of the departments of the Exhibition. However, if their deficiencies are plainly pointed out, it may call attention to them, and cause them to be corrected in future. To make a show attractive and profitable, all the departments should be well represented.

THE PRODUCTION OF BARLEY.

It is a remarkable fact that we are still in uncertainty whether barley grows wild in the Old World; and if so, in what region this occurs. Even the authors of antiquity were at variance as to whence barley, as well as wheat, the grains chiefly used at that time, had been derived. It has been cultivated in Syria and Egypt for more than three thousand years, and it was not until after the Romans adopted the use of wheat bread that they fed this grain to their stock, as is practiced by the Spaniards and Italians at the present day. It is evidently a native of a warm climate, as it is known to be the most productive in a mild season; still its flexibility is so remarkable, that it will grow on the Hymalayas at an elevation of from 10,000 to 13,000 feet above the level of the sea, and mature in favorable seasons and situations on the Eastern Continent as far north as 72°.

The introduction of barley into the North American colonies may be traced back to the periods of their settlements. It was sown by Gosnold, together with other English grains, on Martha's Vineyard and the Elizabeth Islands, in 1602, and by the colonists of the "London Company," in Virginia, in 1611. By the year 1648, it was raised in abundance in that colony; but soon after its culture, was suffered to decline in consequence of the more profitable and increased production of tobacco.

Barley appears to have been cultivated in New Netherland as early as the year 1626, as samples of the harvest of that year, raised by the colonists of Manhattan Island, were sent to Holland, with other grains, as an evidence of their prosperity.

According to the records of the "Governor and Company of the Massachusetts Bay in New England," barley was introduced into that colony in 1629. In 1633 good crops were raised in Lynn.

In 1796 the chief agricultural product of the isle of Rhode Island was barley, considerable quantities of which were raised.

Barley has never been cultivated much in the United States, nor has it entered extensively into our foreign commerce, as we have been consumers rather than producers of this grain. It has been chiefly employed for malting and distillation, and also in considerable quantities as a substitute for sago or rice, after being hulled.

According to the census returns of 1840, the amount of barley raised in the United States, the year preceding, was 4,161,504 bushels; of 1850, 5,167,015 bushels; showing an increase of 1,005,511 bushels. The amount of the barley crop of the United States in 1853, may be estimated at 6,590,000 bushels; which at 75 cents per bushel, would be worth $4,875,000.

Broom Corn.—It is a singular omission in the United States census, that it does not give any statistics of the amount of broom corn raised in the country. In our own State hundreds upon hundreds of acres are appropriated to the cultivation of the desirable commodity. Broom corn never was stouter, nor a better crop than during the present year. It will soon be out.—*Albany Argus.*

NEW HAMPSHIRE STATE FAIR.

Wednesday—First Day.

The Sixth Annual Fair of the New Hampshire Agricultural Society commenced to-day, Wednesday, Sept. 12, at Manchester. The fair is held upon the "old rye field" where it has been held on former seasons. The same area of ground is enclosed as heretofore. The enclosure presents a fine appearance. Near the entrance is the business office, and the editor's room—a feature which all gentlemen connected with the Press know full well how to appreciate. The room is cool and airy. Ample accommodations are found. A long table well supplied with stationary, &c. Connected therewith is a refreshment room, where wholesome and substantial food may be found whenever the reporter is tired of driving the quill, or when he returns from the field, where the sun pours down its scorching rays. None better understand the wants of the editorial fraternity than the indefatigable secretary of the society, James O. Adams, Esq., who is himself well known as an editor. Suffice it to say, that, being seconded in his affairs by Frederick Smyth, Esq., the efficient Treasurer, the facilities for reporting are most admirable, and are duly appreciated by all the representatives of the press present.

Just within the entrance are two of Yale's large tents, one devoted to the display of fancy articles, the other to farming implements and the heavy articles of manufacture. Other tents are erected—one occupied by a representative from the establishment of a caterer well known to the Boston public, J. B. Smith, where the public can find a cup of coffee, not to be despised even by an Oriental. In the immediate vicinity are ample accommodations for feasting the hungry multitude expected tomorrow —the great day of the Exhibition.

Around the sides of the enclosure are ample stalls for horses, of which a large number are already entered; also pens for cattle. The stalls and pens are covered to protect the animals from the intolerable heat. Water carts pass along occasionally, and the animals are treated to a drink, for which we doubt not they are very grateful. Water is forced into hogsheads upon the ground by a hydraulic ram, from a brook which gurgles along at some distance from the field. The arrangements throughout are ample, and reflect much credit upon the committee of arrangements.

Tuesday—Second Day.

In the afternoon, at two o'clock, a procession was formed and escorted the Governor of the State, the orator of the day, the invited guests and officers of the society to the grounds. While the procession was *en route*, we took occasion to look at a couple of violins to which our attention was especially called. They were manufactured by Mr. J. H. Arey, a *farmer* of Boscawen, who has not only an exquisite taste for music, but great mechanical genius, as some beautiful inlaid work-boxes in the exhibition, the product of his leisure hours, fully testify. About a year since Mr. Arey having read of the *scientific* proportions of a Cremona violin, took it into his head to try his hand in making one; he did so, and it was sent to Boston to a music-dealer, who at once sold it, we believe, for some $30. Mr. Arey having heard of the sale, visited Boston, where he received the most flattering assurances of the worth of the instrument, from good judges, who urged him to give his whole attention to the manufacture. He has manufactured several since then on *rainy days*, and during his leisure moments, and they find a ready sale at from thirty to fifty dollars each. The gentleman, we learn, is not satisfied with his present attainments in the excellence of the manufacture, but means to make them equal to the Cremonas. He is about to establish himself at Concord. This is the way with Yankees.

The procession arrived upon the ground at two and a half o'clock. The area of a large radius was a sea of humanity, surging to and fro, each wave endeavoring to dash up to the stand. Occasionally a cry from the ladies told how severely they were moved about, without the least power of resistance.

The orator of the day, Hon. C. B. Haddock, late U. S. Minister to Portugal, was then introduced to the assembly by the President, Ex-Governor Baker.

The speaker commenced with a brief notice of agriculture under the Romans. The present state of agriculture was next spoken of, that it was now a science—a study. The old times had passed away. The next topic was the ennobling influence of agriculture. The farmer is the happiest of men. As farmers we should be satisfied—even as New Hampshire farmers we have reason to be satisfied, although our soil is sterile and hard to cultivate. There are other lands, beautiful lands, that are more inviting; but we have compensation for our hardship. The self-denial, the enterprise which compels the farmer to exert himself—the cold winter which fastens us to our firesides, developes the best instincts of the heart.

We have a great deal to do for agriculture; first, we need an institution for the benefit of agriculture. In this connection, the orator referred to the professions, and said that that which was at the foundation of all others was neglected. We needed an agricultural school—a national agricultural bureau. The inhabitants of Manchester were not more interested in manufacture than the farmers of New Hampshire in agriculture. He then referred to the true policy of New Hampshire—that it was manufacturing. There should be a mill upon every stream; agriculture would thrive thereby.

Horticulture was also a legitimate occupation for the gentlemen and ladies of New Hampshire. In this connection the orator pictured the loveliness, the beauty, the healthfulness of the occupation; it was *Paradise regained.* Horticulture was a teacher to the farmer—teaching him that a great deal could be produced from a small quantity of land.

A liberal education is not a disqualification for a farmer. A liberally educated man is a full grown man. It is not neccessary that he should be a college graduate, to be such. The book of nature was ever before him. No pursuit was better than farming to develop the powers of the mind.

In conclusion, he said that there was something beautiful in the thought that at last we might close our earthly existence upon the spot which we had cultivated and adorned. The address was one of great beauty, and had the rare merit of being brief.

At this stage of the proceedings there was an unqualified *political address*, by Mr. Botts, of Virginia!

Friday—Third Day.

The morning of Friday was beautifully clear and mild. A light fog lay in the valley of the Merrimac, but as the sun ascended the heavens, it disappeared, and at eight o'clock everything in nature was as beautiful as could be wished for the conclusion of the exhibition. At eight o'clock the trotting horses occupied the track. Also a large sized bull, with a rider upon his back, which went round the course in good time, but not very elegantly. Notwithstanding the crowd was so dense yesterday, there was a respectable attendance, and a call for tickets up to the hour of 1 P. M.

During the morning, we fell in company with G. W. Nesmith, Esq., of Franklin, formerly President of the Society, and obtained from him some information in regard to the manufacture of hosiery in that place. The manufactory was erected about a year since, and two hundred and fifty hands are now constantly employed in the mill, besides individuals in some five hundred families in the surrounding country. The machinery used is of American invention, and it manufactures an article very different from those produced by foreign looms. Four different colored threads are interwoven by a loom now in operation, a thing not known in English manufacture. Seventy thousand dozen pairs were manufactured the past year. The company have a contract with Government to supply the navy with twelve thousand dozen pairs the coming year. One hundred and seventy-five thousand pounds of wool, per annum, are used, all American; indeed, all the material consumed is American, save some of the dye stuffs. Most of the wool in the immediate vicinity is used in the establishment.

The looms do their work so easily that a lad of fifteen will weave sixteen dozen pairs per day. The two hundred and fifty operatives receive about five thousand dollars per month for their labors, and the individuals in the surrounding country who do the "seaming," receive about fifteen hundred more, making a total of seventy-five thousand dollars paid out to the people within a radius of fifteen or twenty miles. The articles produced are of excellent texture, and find a ready market. It is a source of pride to the inhabitants of the State to know that after sleeping a Van Winkle sleep of years, New Hampshire is at last seeking with rapid strides her true destiny. An old and matronly lady, while examining the splendid exhibition of hosiery presented, objected to the manufacture as being prejudicial to the morals of the rising generation of girls—"it would lead to idleness," she said, "and the Lord knows that they gad enough now." The remark of the good dame raised many smiles upon the cheeks of the young ladies within hearing.

Plowing Match.

At nine o'clock the Plowing Match was held on ground at the north end of the city, nearly up to the place where the brave revolutionary hero Stark "sleeps his last sleep."

The ground was a sandy loam, well swarded, and requiring a strong team to carry the plow steadily to the depth of seven inches. Seven teams were entered—four single ox, one double team of two-year old steers, and two-horse teams. Each competitor was allowed to "take his time"—a most judicious arrangement, as there was no hurrying, shouting, or use of the whip, but a steady drive as if each was upon his own field. The work in general was well done, especially that performed by the steers, who acted like oxen, bracing their shoulders to the work without the appliance of whip or goad. As we were under the necessity of leaving the ground before the report of the committee was given, we have no means of knowing who were the successful competitors.

Close of the Fair.

At twelve o'clock the reports of the judges were given from the orator's stand.

After the premiums had been awarded, an auction was held in the tents for the sale of articles. The fast horses also appeared upon the course to gratify the never-tired gaze of that portion of the community who delight to see how quickly a horse can travel a mile. In this connection, it may be remembered that many of the best men of the community begin to doubt the utility of State Fairs. The "fast" men and "fast" horses are in some degree obtaining a prominency which makes everything else subordinate. The tendencies are towards horse-racing, and unless a change is made in this respect, it is apprehended that in a few years this will be the all-absorbing feature of such exhibitions.

A large number of the prominent men of the State were present upon the occasion, besides some from abroad.—*Journal, abridged.*

WATER RAMS—CEMENT PIPES.

The following communication, which we find in the *Country Gentleman*, is one of those practical things, coming home to a majority of farmers, that possesses a real value:

As I very frequently receive queries from all parts of the country, respecting cement pipe and cement cisterns, and their durability, I would be much obliged, if you will permit me, through your journal, to answer several communications in regard to hydraulics.

1. Can hydraulic rams be put up and made to raise the water 80 or 100 feet, and be made durable? My answer, from experience, is—There is one running at this place, which has been in operation seven years, and I see no good reason why it should not continue for 50 more. I find the great failure in these machines is caused by bad setting, as I have fitted over a large number which have given perfect satisfaction.

2. Can cisterns be made on sandy soil, without stone or bricks, that will be lasting? I have been engaged in the business for twenty years, and have put them in all kinds of soil, even quicksand, and am yet ignorant of a failure. I consider stone or bricks used a damage; the natural earth is far better to put the cement on, and with one third the expense.

3. Cement has got to be an article of commerce, and can be found in almost all large villages. I purchase a good article of the manufacturer for one dollar per barrel by the quantity.

4. Does it need slaking, like other lime? No.

5. What proportions do you use, for pipe? One-fourth of lime, as a general rule; but it is necessary to vary from that, as some portions of sand are more porous than others, even in the same bed.

6. The color varies in different localities; the Onondaga cement is a yellowish cast; the Rosendale cement is of a light slate color. Budington and the Newark Company at Kingston manufacture a good article. Onondaga cement requires to be

differently prepared where you form an entire body, such as pipes.

7. Does it become useless after being ground one year? I have put down pipe of it after it had been ground and barreled seven years, and the pipe has been down and in use fourteen years.

8. New pipe can be attached to old, and made tight. It can be drilled, and lateral branches lead off for different purposes.

9. A good set of moulding rods with mould is worth twelve dollars.

10. What is the expense of putting down one inch cement pipe? One barrel of cement will make eight rods of pipe. My price is 37½ cents a rod and furnished, and you can calculate the rest.

11. Is it durable? I believe when properly put down, it is as lasting as time.

Colosse, N. Y. A. Butterfield.

MIDDLESEX NORTH AGRICULTURAL SOCIETY.

We had the pleasure of attending the first exhibition of this new society at Chelmsford, on Wednesday, Sept. 19. The rain of the day previous had laid the dust, and the air was cool and exhilarating. Everybody seemed to breathe free again after the intense heat of nearly all the preceding portion of September, so that everybody was elastic, good-natured and active—and that is a great deal to begin with on a show day. The horses were nimble and showy—the cattle cool and contented—the pigs slept and grunted in their narrow domains, unless stirred up by some visitor eager to see their points—turkeys "gobbled," hens cackled, and rooster most defiantly crowed to his neighbor rooster across the way. All was life and animation and good feeling in the centre of Old Chelmsford, on that day. Even the sun himself, as much of a bore as he has recently been charged with being, was held in good fellowship—for men and maidens, and pigs and poultry, were basking in his beams, and declared they were really congenial.

We first looked at the plowing match. Eleven teams were entered, and ten contested. The ground selected was a sandy loam, without stones, and with only a very slight sward. It was well plowed, as it might have been with only ordinary teams and plowmen—but it was evident, notwithstanding, that there was skill in both, which would have done good work anywhere.

The trial of strength and skill of working oxen was finely contested. The load drawn, including the wagon, weighed 6000 pounds, and it was handled by several with great credit to the teamster and team. After trial by the ox teams, a single horse, the property of Mr. White, of Lowell, was hitched to the end of the tongue of the wagon, started it in the sand and drew it up a sharp pitch to the level ground. His weight, we were informed is 1675 pounds.

The show of cattle was not large, but included some fine specimens. A pair of native oxen, the property of H. A. & S. A. Coburn, of Lowell, 5 years old, weight 3905 lbs. and girting 7 feet 8 inches, attracted all. They are working cattle, and regularly employed on the farm. Elijah M. Reed's Alderney, the best cow, probably, in the State, was there, with a calf by her side. Z. P. Proctor, of Dunstable, and H. C. Merriam, of Tewksbury, each had Durham Short Horn bulls, which were fine. Messrs. Spencer, of Lowell, Sheldon, of Wilmington, G. P. Wright, of Dunstable, Gardner Parker, of Billerica, and Wm. Nichols, of Lowell, had cattle, horses and swine, which were excellent, but which we cannot more particularly speak of now.

The display of *vegetables* was remarkably fine, indeed, we have rarely seen better, and they embraced every kind usually found in New England. We noticed among other marvellous growths, 21 pumpkins, all produced from a single hill, any *one* of which would make a very large house for a family of a dozen persons from Lilliput!

But the room containing the fruit and the handiwork of the ladies was the centre of attraction on that day. We had no desire to select specimens of unusual merit where all were so good. Pears were very fine, and in variety; so were the plums, Washington, Coe's Golden Drop, Gages and others. Some specimens of Crawford's Early Peaches, presented by Mr. David C. Perham, surpassed in size any we had ever before seen. The specimens of apples were of the highest order, and in considerable variety; indeed, it would puzzle some of the State shows to make so fine a display of apples, and if they were not all rightly named, it is only an error that much older societies are quite liable to fall into.

There was some fine *Poultry* on the ground, but the display was not large.

The address was by the Hon. Tappan Wentworth, of Lowell. His topics were, the policy and action of the State in relation to agriculture, a brief history of the origin of the County Society, and the practice of agriculture in England. He thought the hardness of our soil led the earlier settlers into other pursuits, and that the same influences may be in operation now; the demand for agricultural products calls for better cultivation; he spoke of the means of increasing crops, of the profits of farming, and brought together statistics which will be exceedingly valuable hereafter. The address was eminently practical, and adapted to the occasion, and we hope to see it handsomely printed.

The dinner was well attended by some five hundred persons, nearly one-half of whom, we should judge, were ladies—truly a most admirable feature in these social gatherings.

The President of the Society—the Hon. William Spencer—addressed the multitude in a neat and appropriate speech, and remarks were made by Dr.

Bartlett, of Chelmsford, Mr. Wentworth, of Lowell, Mr. Brown, of Concord, and Messrs. Clark and Proctor, of Danvers.

Upon the whole, the first Exhibition of the new Society has been a successful one; but it will take more than one year, to hitch the team and straighten the chain so as to get an even draft and full power; but *the team* is there, and will perform the work effectually by-and-by. We tender our thanks for kind attentions, congratulate them upon their auspicious prospects, and wish them abundant success in all their future efforts in the noble cause.

For the New England Farmer.

THE POTATO BORER.

Friend Brown:—Having your attention called to a worm found in the potato vines, you express a desire to be made acquainted with his history and character. With this worthy I think I may claim an acquaintance of many years standing, and though knowing no good of him, doubt his capacity for any very extensive evil. Unless very greatly deceived in the individual, I have had the honor—am I to say rare honor?—of his acquantance, man and boy, some thirty years, having occasionally met him at his work in potato and dahlia stalks, and more or less every year in corn stalks.

Five years since I had some choice dahlias presented me, which he almost entirely destroyed, before I detected the cause. This year he figured pretty extensively in my stalks, both corn and potatoes, which I attributed—as I did the excess of grubs and other similar vermin—to our cold, backward spring. He is about one inch in length, with a dark head, flesh-colored neck, tail and belly, and a brown or chocolate-colored back; in motion, nimble and active, moving up and down his hole in the pith or heart of the stalk with great ease and speed, for a worm, and when placed upon the ground, propelling as if he heard the dinner-horn. Evidently a *stalk*-jobber by profession, though rarely seen, I presume, at the broker's board. He has, however, completely wormed himself into the business, and is quite as successful in his operations, and as essentially uses up the stocks upon which he operates, as the most accomplished among them; I should never suspect him of the "potato-rot," however, as does one of your correspondents, *stalk*-jobber though he be.—Indeed, from my knowledge of his habits and propensities, I should deem him much more capable of tunnelling the Hoosac, and that, you perceive, is setting him down as a very great bore, as since that scurvy affair of the dahlias I have a perfect right to do. L. P.

East Woburn, Sept., 1855.

Lake Superior Copper Mines.—From reliable sources we learn that the production of copper this season will be about 5,000 tons mine weight, amounting to say 3,500 tons of ingot copper, being fully one-seventeenth of the entire product of the world. The product of another year will, in all probability, be much greater than that of the present. The value of copper for the present year will be about $1,750,000. Another year it will probably reach $2,500,000.

EXTRACTS AND REPLIES.

BOOKS FOR FARMERS.

In your paper for April, page 197, in answer to one of your correspondents, you gave a list of books. I had Johnston's Chemistry and Geology, Browne's Muck Manual, and Youatt and Martin on Cattle; the others I have purchased, with the exception of Downing's Fruit and Fruit Trees. In asking for Davy's Agricultural Chemistry, they gave me a London edition of 1844, by Sir Humphrey Davy, but edited by John Shur. Was that right?

Is there no later edition of the Farmer's Encyclopædia and Harris on Insects, than 1852? I have perused these books with pleasure and profit.

Remarks.—There has not been, to our knowledge, an American edition of Davy's Chemistry, and no later edition of the Encyclopædia or Harris' Insects than 1852.

WANTS TO BE A FARMER—QUESTIONS HARD TO ANSWER.

"I wish to ask if there is much chance for a young man without money to get ahead in the country? Is there much time for reading and study? Do you know of a good farmer that wants, or would take on trial such a youngster as I shall describe myself to be? I am 5 feet 8 inches high, rather slender, 19 years of age, have a good common school education; I am industrious, honest and sober, and can obtain certificates to these facts from reliable persons, and I neither chew or smoke tobacco."

Remarks. — *Industry*, *Honesty* and *Sobriety* are three cardinal virtues, and they do not often fail of success. But it is an up-hill work to go to farming "without money." That must be earned or borrowed first. Now who will take our young friend, on trial, among our numerous good farmers, and pay him a fair compensation for his labor, and teach him the art which he aspires to learn? That, in our opinion, is just what his case requires—to go into a kind family, on a good farm that is conducted systematically and with some considerable degree of science, where he could at the same time earn something with which to make a beginning, and acquire a knowledge of the business of the farm.

We could refer to gentlemen in our own, and many other towns in the State, who could be exceedingly useful to young men in this way, and not be losers themselves. Most happy shall we be to inform "F. E. C.," of N——t, of such an opportunity whenever it is made known to us. In the meantime, we refer him to the article in another column, on the *Study of Agriculture*, and to the advertisement of Prof. Nash.

FINE APRICOTS.

I send you a few of my apricots, for the purpose of ascertaining the name of the kind. I suppose them to be either the *Moorpark* or *Peach Apricot*, but as I have no other sort with which to compare them, I cannot satisfy myself of which variety they are. The descriptions in the books are very much alike. On the 25th of last month, I took one from the tree, measuring full 7 inches in circumference, and quite a number of others from 6 to 6½ inches; and six of them weighed a pound.

The specimens I send you are not so large as they are the last of the season. Hoping they will reach you in good condition, so that you may test their deliciousness, I remain, very respectfully yours,

Leominster, Sept. 5. C. C. Field.

Remarks.—The apricots were received in good condition, and were as delicious as any we have ever tasted. Indeed, we never saw finer grown at the South. We think the variety the *Peach*, though the *Peach* and *Moorpark* bear a strong resemblance. Thank you, sir.

WHAT IS THE EXPENSE OF KEEPING A HORSE?

Mr. Editor:—Cannot some of your numerous subscribers, who have made and are continually making experiments, give us the actual expense attending the keeping of horses? Probably there are more persons directly and indirectly interested in this matter, than most any other which could be mentioned.

We will say the horse is a good feeder, weighs nine hundred pounds, and is required to labor every day, to that extent which will not injure him; hay at twenty dollars per ton, and meal at one dollar per bushel. What I would wish to know, is, what would probably be the expense of keeping a horse, per annum, under these circumstances, including shoeing? Can the horse be kept in proper condition for less than one hundred and twenty dollars? In this I calculate he will consume two tons of hay, about sixty-eight and a half bushels of meal, and the cost of shoeing ten dollars. If there is any cheaper or better way, I should be very glad to have some of your correspondents inform me what it is, and much oblige one who is deeply interested in the subject. Respectfully, N. Q. T.

East Weymouth, Aug. 27, 1855.

Remarks.—Will some of our numerous readers who have paid attention to this matter, reply to the important queries propounded above?

WORK DONE BY MOWING MACHINES.

On looking over the return of work done by mowing machines, the present season, I find *Manny's Machine*, made by Adriance & Co., of Worcester, has cut 150 acres in 140 hours, averaging *one and a half tons* to the acre, at an expense of accidents less than $5. If this machine will continue to operate as well, I think it will not fail to find employment.

A YELLOW LOAM SOIL.

I should be much obliged to you for a description, through your paper, of a yellow loam soil; i. e., if that is a proper name for a soil.

A Northern Subscriber.

Canaan, Vt., 1855.

Remarks.—Will some one cultivating such a soil describe it to the inquirer?

Wool.—"J. B. P.," of Rutland, Vt., will please accept our thanks, for his proposition to furnish us samples of wool.

LADY'S DEPARTMENT.

DOMESTIC RECIPES.

Candied Orange or Lemon Peel.—Boil the rind from thick skin oranges or lemons in plenty of water, until they are tender, and the bitterness is out; change the water once or twice, if necessary. Clarify half a pound of sugar with a half a cup of water for each pound of peel; when it is clear, put in the peels, cover them, and boil them until clear, and the syrup almost a candy; then take them out, and lay them on inverted sieves to dry; boil the syrup with additional sugar, then put in the peels; stir them about until the sugar candies around them; then take them on a sieve, and set them into a warm oven, or before a fire; when perfectly dry, pack them in a wooden box with tissue-paper between.

To make Fruit-Pies.—No *under crust* should be made to apple or any fruit-pie. It is always heavy and not fit to eat. Place a narrow rim of paste around the edge of the plate, and fill with the fruit, either raw or stewed, and cover it. The juices will be retained much better, and it will save a *sight* of flour and butter, which is no trifling consideration in these days, and what is of more consequence, save *dyspepsia*, which costs more. After cutting, they are taken out with a spoon.

Milk in Bread.—I have more objections than one to milk in bread, but the most serious is, that persons of advanced age, who are in the daily use of milk-made bread, will be expected to suffer from an over supply of osseous or bony matter, and particularly if their kidneys be affected. Bread should always be made with water, and when so made, it is suitable for the aged and the young, the sick and the well. And as for sour milk, a microscopic view would, I presume, present additional arguments against its use.—*Water Cure Journal.*

To Preserve Iron and Steel Knives from Rust.—Procure some melted virgin wax—the purer the better—and rub it thoroughly over the blades of the knives. After it has dried, warm the knives, and having carefully removed the wax from the surface, rub them briskly with a dry cloth, until the original polish is fully restored. This will fill all pores with the unctious and minute particles of the wax, which will adhere firmly, and prevent the intrusion of water or moisture which is the cause of rust. They will retain their brilliancy for weeks, if used.

To Extract a Glass Stopple.—Wrap a large strip of wool around the neck of the bottle, once; fasten one end of this firmly to some stationary object, and hold the other end in the hand. "See-saw" the neck of the bottle, and the friction will so heat the latter that it will expand sufficiently to allow the stopple being removed with ease.

To Clean Paint.—Smear a piece of flannel with common whiting, mixed to the consistency of common paste, in warm weather. Rub the surface to be cleaned quite briskly, and wash off with pure cold water. Grease spots will in this way be almost instantly removed, as well as other filth, and the paint will retain its brilliancy and beauty unimpaired.

New England Farmer.

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THE subscriber has been appointed agent by Messrs. George Seymour & Co., South Norwalk, Ct., for the sale of the genuine Plants, direct from their grounds, of this new and superior variety, fruit very large and sweet. It is an enormous bearer. Fine, strong plants will be ready for delivery in October and November, or March and April next, at $5 per dozen plants.

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14 Commercial, corner of Chatham Street, Boston.
October, 1855. *tf

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Dealer in the Hazard Company and Enfield Company's Sporting Powder, of various qualities and sizes of grain, elegantly put up in Kegs and Canisters, and manufactured expressly for the Boston market. Also, Shot and Balls, Percussion Caps, Hunting Knives and Flasks, Powder Flasks, Shot Pouches, Game Bags, Fish Baskets, &c. &c. Embracing every description of Hunters' Goods.

12 Washington Street, Boston.

Fishkill Landing Nurseries.

DUCHESS COUNTY, N. Y.

THE subscriber having now on hand an unusually large assortment of FRUIT AND ORNAMENTAL TREES, and being desirous of reducing the same, and greatly curtailing his amount of stock, would call attention to the same, consisting as it does of the most approved varieties, in part as follows:

50,000 Apple, choice variety, from 6 to 10 feet high, at from $12 to $14 per hundred.

15,000 Pear, 4 to 8 feet, at $20 per hundred,

15,100 Cherry, 6 to 10 feet, at $20 per hundred,

20,000 Plum, 3 to 5 feet, from 1 to 3 years from the inoculation, at $28 to $34 per hundred.

Apricots on Plum Stocks, from 1 to 2 years from the inoculation, $25 to $30 per hundred. Those of one year's growth from the bud are very fine.

Also Peach, Quince, Raspberry, Currant Grapevines, Hybrid Perpetual and other Roses, Shrubs, Vines, &c., &c. A fine stock of Dwarf Trees of Apple, Pear and Cherry. Also 10,000 Deciduous Ornamental Trees, consisting in part of 10 varieties of Elm, 6 Maple, 6 Chestnuts, 4 Beach, 6 Ash, 2 Birch, 5 Linden, 2 Larch, Cypress, Tulips, Osage Orange, Alder, &c., &c. A large portion of the above are of large size, and fine form, among them are some of the most desirable Weeping Trees.

20,000 Evergreen Trees of fine size and beautiful form, such as Norway, and other Spruce; 5 varieties Pines, 5 Arbor Vitæ, 3 Cedars, 6 Junipers, 2 Yews, Balsam of Fir and Tree Box.

The Ornamental Trees will be sold at reduced prices.

From persons with whom we are unacquainted the Cash or a satisfactory reference will be required.

Catalogues sent to all post-paid applications by the subscriber.

DANIEL BRINCKERHOFF.
Fishkill Landing, Sept. 1st, 1855.

Ruggles, Nourse, Mason & Co.,

Manufacturers and Dealers in all kinds of

AGRICULTURAL IMPLEMENTS

AND MACHINES,

Such as Horse Powers and Threshers,

FANNING MILLS, KETCHUM'S MÔWERS,

HORSE AND HAND RAKES,

Superior Plows, of all Kinds and Sizes,

HORSE HOES, SEED SOWERS, CORN PLANTERS, PORTABLE GRINDING MILLS,

Hay, Stalk and Straw Cutters,

STORE TRUCKS, SHOVELS,

SPADES, FORKS, HOES, &c.

MANUFACTORY AT WORCESTER,
WAREHOUSE,

Quincy Hall, Boston, Mass.

January, 1855.

WOOD ENGRAVING.

D. B. GULICK,
ENGRAVER ON WOOD.

No. 191 WASHINGTON STREET........BOSTON.
[Entrance on Norfolk Avenue.]

☞ Every description of Wood Engraving promptly executed on the most reasonable terms. Designs furnished. Call and see specimens. 1y—oct.*1y. Sept. 22.

FERTILIZERS.

DeBurg's No. 1 Superphosphate of Lime.
Best Peruvian and Mexican Guano.
Ground Bone. Ground Plaster.
Poudrette;—Lodi Manufacturing Company.
Pulverized Charcoal. Sulphate of Ammonia.

ALSO FOR SALE,

Grass Seeds of Reliable Quality.

GEO. DAVENPORT,
No. 5 Commercial, corner of Chatham St., Boston.

THIRD NATIONAL EXHIBITION

OF THE

United States Agricultural Society,

TO BE HELD IN

THE CITY OF BOSTON,

On the 23d, 24th, 25th and 26th of October, 1855.

$10,000 offered in Premiums!

The United States Agricultural Society will hold their Exhibition of Stock—*CATTLE, HORSES, SHEEP* and *SWINE*—in Boston, on the days above named.

The city of Boston has generously granted the use of a fine Public Square for the purposes of the Exhibition, and its public-spirited citizens have promptly subscribed the sum of Twenty Thousand Dollars, to guarantee all expenses.

ABSTRACT OF PREMIUMS.

The new and elegant DIPLOMA of the Society will be presented to every Exhibitor to whom a premium is awarded.

CLASS I.—CATTLE.

THE HERD PREMIUM.

For best Bull and four Cows, from any one herd	$200
For 2d best do. do.	100

Durhams, Devons, Herefords, Ayrshires and Jerseys.

25 premiums, amounting to	$2000
Bulls, 1st premium	100
Cows, 1st premium	100

Grade Cows, Native Cows and Milch Cows.

25 premiums, amounting to about	$550
1st premium for each	100

Working Oxen.

5 premiums, amounting to about	$200
1st premium	100

Fat Cattle.

6 premiums, amounting to	$250

CLASS II.—HORSES.

Thorough Bred Stallions and Mares.

8 premiums, amounting to	$650
Stallions, 4 years old and over, 1st premium	200
Mares, 4 years old and over, 1st premium	150

Stallions of All Work.

15 premiums, amounting to about	$550
1st premium	200

Breeding Mares and Fillies.

13 premiums, amounting to about	$600
1st premium	150

Matched Horses.

6 premiums, amounting to about	$400
Matched, 1st premium	100
Fancy Matched, 1st premium	75

Family Horses.

4 premiums, amounting to	$250
1st premium	100

Draft Horses.

6 premiums, amounting to	$250
Matched Draft Horses, 1st premium	100
Single Draft Horse, 1st premium	50

Trotting Horses.

On Tuesday Afternoon.

1st premium	$200
2d premium	100

On Wednesday Afternoon.

1st premium	$200
2d premium	100

On Friday Afternoon.

1st premium	$200
2d premium	100

CLASS III.—SHEEP.

Long Wooled, Middle Wooled, Merinos and Saxons.

48 premiums, amounting to about	$600

CLASS IV.—SWINE.

Suffolk, Essex and other Breeds.

36 premiums, amounting to about	$500

The Show Grounds will be ready for the reception of Stock on and after October 18th. Persons intending to exhibit, are requested to notify the Secretary, on or before October 1st.

A half-mile track will be prepared for the trial of horses, and commodious seats for spectators, furnished at a small charge.

A GRAND AGRICULTURAL BANQUET will be held on the grounds on Friday Afternoon, at which the Premiums will be announced, and eloquent addresses may be expected from distinguished gentlemen. The ladies are expected to participate in the festivities.

The various Railroads in New England will convey stock free of charge; and arrangements to the same end, with other roads, are in progress.

Premium Lists, &c., will be forwarded, on application to the Secretary.

MARSHALL P. WILDER, President.
WILLIAM S. KING, Secretary.

Boston, Sept. 22, 1855. 4w

WHEELER & WILSON'S

FAMILY SEWING MACHINE.

THIS Improved Machine is rapidly coming into general favor, and is acknowledged to be the *only* machine adapted to family use. The beauty and durability of its stitching is unrivalled, working equally on fine cambric, linen, quilting and heavy broadcloth. Its rapid and noiseless operation is an advantage possessed by no other machine, while its simplicity of construction renders it easier to be used and less liable to need repairs—an objection reasonably urged against every other machine. To Families, Tailors, Shirtmakers, Milliners, &c., it is invaluable.

These celebrated machines are in operation and for sale at

93 Court Street, Corner of Cornhill,

Where specimens of their work will be furnished at any time.

Feb. 1855. 1y. J. E. ROOT, Agent.

A Rare Bargain.

NURSERY AND FARM FOR SALE.

On account of feeble health and too much business, the subscriber will sell the LYONS NURSERY, one-fourth of a mile from the village of Lyons, the county seat of Wayne Co., N. Y.

There are 100 acres of land, two dwelling houses and barn, 2 wells and 1 spring; 1000 bearing peach trees, 200 bearing apple trees, 150 bearing pear trees, all choice fruit, and 500,000 trees of all ages, from the seedling of this year to trees of choice varieties ready for market. Trees can be forwarded by Erie Canal and Central Railroad to all parts of the world. The farm, nursery, implements and stock will be sold for $150 per acre. Circulars containing a minute description will be forwarded on application to E. WARE SYLVESTER,

Aug. 11, 1855. 4w2* Lyons, N. Y.

Agricultural Education.

ARRANGEMENTS have been made, in connection with Amherst College, for the Instruction, in Agriculture and its kindred sciences, of young men, not permanently members of the College, but who may resort to it, for longer or shorter periods, at pleasure, for this specific purpose.

It has been thought best that this Instruction should not extend, as in the case of students pursuing a full collegiate course, over the whole year, but should be limited to such portions of time as may better suit the convenience of those for whom it is specially designed.

Accordingly, the Instruction will be given only during the Fall and Winter Terms of the College; the former commencing on the first Wednesday of September, the latter on the second Wednesday of January, each continuing thirteen weeks.

Besides daily Recitations during both Terms, on subjects of Practical Agriculture, and on the Applications of Science to the same, students in this department will have access to the College Library, to the Cabinets of Natural History, and to the following valuable courses of Lectures:—

1st. A course of Lectures on Geology; and another on Anatomy and Physiology, extensively illustrated, by Rev. Dr. Hitchcock. (Fall Term.)

2d. A course of Lectures on Mechanical Philosophy, Hydrostatics, Hydraulics, Electricity, &c., by Prof. E. S. Snell. (Fall and Winter Term.)

3d. A very full course of Lectures on Inorganic and Organic Chemistry, with important applications, by Prof. Wm. S. Clark. (Winter Term.)

TERMS.—For Tuition, including Lectures and use of Library and Cabinets, $10 per term of thirteen weeks. Board from $2 to $3 per week.

For further particulars, address the subscriber at Amherst.

Sept. 22. J. A. NASH.

Fall Grain, Grass Seeds, &c.

100 BUSHELS Blue Stem White Winter Wheat.
150 bushels Winter Rye.

Herds-Grass, Red Top, Northern Clover, White Honeysuckle Clover, Blue-joint Grass, Ray Grass, Orchard Grass, Winter Spinach, &c. &c., for sale at PARKER, WHITE & GANNETT'S Agricultural Warehouse and Seedstore, 47, 50 & 52 Blackstone Street, Boston. 3w Sept. 22

TERMS....

THE

NEW ENGLAND FARMER:

A MONTHLY

AGRICULTURAL JOURNAL,

FOR THE FARM AND GARDEN.

SIMON BROWN, Editor.

FREDERIC HOLBROOK, OF VERMONT, HENRY F. FRENCH, OF NEW HAMPSHIRE,
ASSOCIATE EDITORS.

Without encouragement of AGRICULTURE, and thereby increasing the number of its people, any country, however blessed by nature, must continue poor.—SWIFT.

Vol. VII. NOVEMBER, 1855. No. 11.

BOSTON:
JOEL NOURSE, PUBLISHER,
QUINCY HALL.

NEW ENGLAND FARMER.

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POSTAGE.—The Postage on the Monthly Farmer, to subscribers, is now twelve cents a year, to be paid quarterly or yearly, in advance, at the office where it is received.

DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

VOL. VII. BOSTON, NOVEMBER, 1855. NO. 11.

JOEL NOURSE, PROPRIETOR,
OFFICE....QUINCY HALL.

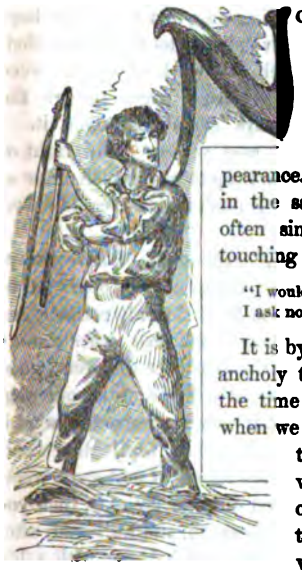
SIMON BROWN, EDITOR.

FRED'K HOLBROOK, } ASSOCIATE
HENRY F. FRENCH, } EDITORS.

CALENDAR FOR NOVEMBER.

"Where are the flowers, the fair young flowers
That lately sprang and stood
In brighter light and softer airs,
A beauteous sisterhood?
Alas! they all are in their graves;
The gentle race of flowers
Are lying in their lowly beds,
With the fair and good of ours.
The rain is falling where they lie,
But the cold *November* rain
Calls not, from out the gloomy earth,
The lovely ones again."

BRYANT.



NOVEMBER, gloomy, sad November, we welcome you, notwithstanding your grave countenance and despoiled appearance. We welcome you in the same spirit that we often sing that beautifully touching anthem—

"I would not live alway,
I ask not to stay," &c.

It is by no means a melancholy thought to us, that the time shall surely come when we shall lie down for the last time on our worldly couch; that our "body shall return to dust as it was, and our spirit to God who gave it;" and in the same feeling that we admit this thought, and sing the anthem alluded to, we welcome that annual type of decay—NOVEMBER.

Nothing is more trite than the comparison of the seasons to the life of man, but its triteness makes its truth; and he who observes at all, cannot fail to see how Nature, through all her revolutions, delineates upon things inanimate, the semblances of things animate, showing the close connection of man and bird and beast, with the unbreathing Nature that surrounds them, and leading the human mind naturally to comparisons and reflections by which a moral lesson is engrafted on the connection of the animate with the inanimate.

November, although classed as the last Autumn month, in our northern climate, partakes far more of Winter than of Summer, and, on its conclusion, we often see the white garb of Winter spread over all the earth about us, and hear the merry bells, as the sleigh-riders glide smoothly along the glassy surface of the road-way, seeking either business or pleasure. The harvests are now all secured. The scaffolds in the good farmer's barn are filled to the very rafters with clean and wholesome and sweet-smelling hay; the grain-bins are well filled with corn and rye and wheat and oats; in the cellars are stowed away potatoes and pumpkins, beets, carrots, turnips, &c. &c., ready for indulging the appetite of both man and beast; the wood which was cut, split, and so nicely packed away in the wood-house last Winter and Spring, now begins to yield its comforts in the cheerful blaze upon the winter hearth; the long evenings are spent by the farmer's family and his friends and neighbors before the ruddy glow made by the ignition of the seasoned oak, walnut and rock maple. If the farmer has done his duty, the cattle stalls are all in order, tight, warm and comfortable; cattle-cords and curry-combs are kept hanging in their proper places, and every morning the oxen and cows are carded smooth and nice, and the horses are curried and their manes and tails combed out and made to shine almost as if they were of silk. The sleds are got ready to haul the winter's wood to be cut, sawed, split and piled in place of that which was prepared last winter, and which is now so useful, and all is ready for old Boreas. Farmer Slothful has come over from Sleepy Hollow, to pay Farmer Thrifty a visit at Wideawakeville. He arrived last evening, mounted on a poor, raw-boned horse, having on him a wagon-harness, the farmer riding just behind the pad saddle.

Farmer Thrifty had just finished work at the barn, and was approaching the house as Farmer Slothful rode up. "Why, what upon earth has happened to bring you here in that plight, neighbor S.?" said Farmer T. "Well," replied Farmer S., "it *is* strange, but I never *do* set out to ride anywhere without meeting with some sort of an accident; it *does* seem as if our boys never could have anything in order. About a mile down the road, off came the tire from one of the hind wheels of the wagon, and before I could stop the old horse, away went the rim of the wheel, and I was jolting along on the ends of the spokes, and so I had to unhitch, leave the wagon, and ride up here in this way." Farmer S. was made welcome, of course, his horse taken care of, and he seated before the warm fire. The evening passed pleasantly away, for Farmer Slothful was a good talker, and could tell good stories, and was interesting. The farmers have breakfasted, (Farmer Slothful did not get up till he was called to breakfast,) and Farmer Thrifty proposes to take Farmer Slothful about the premises. They visit the barn.

"How well your cattle *do* look," says Farmer S.; "somehow I cannot keep mine looking so well. I often tell our boys I don't believe they take as good care as they ought of them, and I see you have got these new-fashioned chains to tie them up with; I've heard of them, but have gone on in the old way of using wooden bows, and when old Billy got loose the other night and hooked my best heifer almost to death, I told our boys I thought we had better try some better way of tying up the cattle, but Joe seemed to think it would be more plague than profit, and so we have kept on the old way. And then your hay-mows, how well they look—so smooth and regular—I never could learn our boys to lay a mow well, but there, the hay is just as good as if it was all laid in regular! And so you keep your scythes all hung up in that way—well, that is an excellent plan; as for me, I cannot do it, for our boys will have one here, and another there, and John left his hanging on an apple tree all last winter, and it was ruined. And so (taking down one) you have got these new kind of fastenings; it is a great improvement, isn't it? How firm it holds the scythe to the snath! Well, I declare, if I have told our boys once, I've told them twenty times that we must have some of these new snaths, but Joe thinks these new-fangled notions are humbugs, and so we go on in the old way—first we wedge, and then we put a piece of leather under the wedge, and if we can't keep the scythe set right any other way, we drive a nail behind the wedge, and so we manage to get along, but if I live till next haying time I will have some of these snaths."

Then the two farmers pass through a door into the work-shop. "Well, I do declare now, if you haven't got a work-shop," said Farmer S., "and all your tools seem to be in such excellent order, and you have a turning lathe, and a grind-stone, on friction rollers, and a set of planes and saws, and I suppose you find a use for all of them." "Certainly," replied Farmer T., "I and my boys should be ashamed of ourselves if we could not make all the handles to our tools—fit the boards to our carts and wagons—get out the stuff for and put up our grain-bins—and, indeed, make any little repairs that may be necessary about the premises. Not long since, my boys went to work and made a first-rate garden-roller, with which I have rolled all our walks, and find it as good, perhaps better, than a stone or iron one which would cost fifteen or twenty dollars!"

"Well," says Farmer S., "I am always buying and buying tools, and we have them all scattered round the farm, and hardly ever find one fit for use. We keep the grindstone under the great apple tree down in the orchard, and once in a while we have a general grinding up of tools, but they soon get dull again, and are broken and lost, and then I have to buy new ones. And here is your wood-pile. I declare that looks nice, and I should think you had enough wood cut, split, and piled up here, to last you two winters. I have told our boys a great many times that I should think it would be better for us to prepare wood one winter for the next,—but Joe thinks that green wood makes the best fire after you get it going, and so, as the boys get up the wood, I have always let them have their own way pretty much—so we haul up the wood and cut and split it and burn it green, though the women folks are always grumbling about it. I should think it would cost you an awful sight of money, neighbor T., to keep things in such order as you now have them; I don't think I could afford it."

"Well, neighbor S.," replied T., "I have always found it *cheaper* to do things as they ought to be done, than to do them in a slovenly manner, and my experience has taught me that *order* about a farm is fully equal to the assistance of several good workmen. Now, were you at home, with your wagon in the predicament it now is, you would send it first to a wheelwright, he would repair the woodwork of the wheel in the course of perhaps a week, and charge you a round sum for doing it, then you would send it to a blacksmith, and he would, after keeping it another week, send it home with a bill for his labor, and perhaps in another week the tire would again come off! I have sent Ben down to bring up your wagon. He and Henry will take the wheel into the workshop and repair the wooden part in a few hours, then we will go to my blacksmith's shop, for I have one, and being a tolerable blacksmith myself, we will repair, cut and set the tire as it should be done, and your wagon will be ready for you whenever you desire to leave." "Well," says Farmer Slothful, "this does beat all; I should never think of doing such a thing, and shall be so much obliged to you." And so the conversation between the two farmers went on, one admiring and wondering—the other explaining, till the farm and its belongings were thoroughly examined.

The wagon was brought and mended before set of sun, and before the evening fire, Farmer Thrifty told Farmer Slothful how he had expended every dollar he had in the world, some thirty years before, for his farm and the stock upon it. That he and his wife commenced living upon it—it was an old *run out* farm. That he had labored diligently upon it. That he had reared and educated decently a family of children, and that now he owned the farm as it then was, in the highest state of cultivation, with excellent buildings upon it, and had quite a sum of money at interest.

Farmer Slothful wondered how he could do it. He said, as for his part, he was left by his father with the old farm and quite a large sum of money at interest, many years ago. He had tried to carry on the farm as well as he could—his boys had come on and they learned a little farming, and when Joe, the oldest got old enough, he thought he could *do better somewhere else* and he went away and was gone several years and came back poor, and hung round home a while doing nothing; at last he concluded to try farming again, and so he took hold pretty much as he pleased, and the other boys went on pretty much the same way; as for himself, he never did much like to farm, and he left it pretty much to the boys, and the farm had grown poor somehow, and did not yield enough to support the family, and he had spent all the money he had, and felt rather discouraged, like. Farmer Thrifty gave his brother farmer some excellent advice—told him, among other things, to wake up and see to the farm himself, and not trust to "our boys" for everything. Farmer Slothful left for home early next morning, "a wiser and a better man," expressing to Farmer Thrifty his heartfelt gratitude for his kindness and good advice; and we rather think, next spring, he will have things at Sleepy Hollow in a little better state than heretofore, and that Joe and John and the rest of "our boys" will be obliged "to turn over a new leaf," and adopt some of the modern improvements in scythe-snaths, cattle "tie-ups," &c., &c. And if the "Calendar for November" falls beneath the eye of any Farmer Slothful about here, we hope it may spur him up to follow the example of good Farmer Thrifty, who, we know, is a constant reader of the *New England Farmer*, while we do not believe Farmer Slothful ever saw a copy of it in his life.

SPARHAW APPLE.—MR. GEORGE SHOREY, of Boston, allowed us to look at a couple of apples of this variety, weighing *one and a quarter pounds* each, and measuring *fifteen inches* in circumference. They grew in Illinois.

NORFOLK AGRICULTURAL SOCIETY.

Dedham, Wednesday, Sept. 26.

The seventh annual Cattle Show and Fair of the Norfolk Agricultural Society commenced this morning at Dedham, and was well attended.

The Agricultural Hall, where the various products of the farm, garden, &c., are exhibited, forms the first great centre of attraction. Here the show is profuse, and of a very interesting character. Three long tables stretch along the centre of the room, filled with flowers, fruits, and vegetables; whilst at the side tables are displayed on the one side farming utensils and implements, and on the other a very choice assortment of fancy articles, in the shape of domestic manufactures, including needle and crotchet work, shell-work, millinery, drawings, paintings, pressed flowers, &c. &c.

Of fruit, apples and peaches especially, the exhibition was very fine and very extensive.

Piled at the corner of one of the tables we find a collection of jellies, ketchups, pickles and preserves, and also several specimens of home-made bread.

Of agricultural implements, the stock is not large, and those which are shown are more remarkable for excellence of workmanship than novelty of design. Some elastic hay and manure forks, by Mr. Henry Partridge, of Medfield, called forth marked commendation. Some wagons and other carriages of beautiful finish, as also harness, are shown at the farther end of the hall.

The exhibition of stock is held in a field behind the hall. Many horses are upon the ground, and amongst them some beautiful and symmetrical animals, more than one of which trace their pedigree to Black Hawk, and Morgan Mare. One fine young colt, 3 years and 4 months old, shown by Mr. Nathaniel Smith, and raised by him at Dedham, is marked as weighing 985 lbs. A very large number in proportion of brooding mares are exhibited along with their foals.

The show of young bulls, principally of the Durham or Alderney breed, is very fine. A pair of fat cattle, 7 years old, owned by Mr. Geo. Crosby, of East Medway, attract much attention for their fine development and noble size. Some excellent yoke steers are also on exhibition; but the cattle generally we regard as inferior. A very large proportion of those shown are of the Jersey breed, truly aboriginal in their aspect. It is at the same time gratifying to find the prominence given to the production of beasts of useful quality rather than the specimens of bovine obesity which a false system of over-feeding is sure to bring on. The pigs exhibited are few in number, and not particularly remarkable, but several of them have very large and interesting families under their care.

A unique feature of the show consists in the poultry, &c., but it is not large, feathered favorites being apparently at a considerable discount just now. Of the once celebrated Shanghai breed, the most distinguished representatives present were the grey variety, known as the Chittagongs.

PLOWING MATCH.

At nine o'clock on Wednesday morning, the plowing match was held. Five double ox, one single ox, three horse teams, and one team composed of one yoke of oxen and a horse, contested for the prizes. The ground was a gravelly soil, filled with large pebbles, which, despite the exertions of the plowman, occasionally threw the plow from the furrow. The work was generally well performed, though in some instances there was room for improvement.

SPADING MATCH.

After the plowing, a spading match was held on ground immediately west of the hall. Nine sons of the Emerald Isle entered the lists, each intent upon securing the prize. At a signal, each spade was thrust into the ground, with a spasmodic effort, highly pleasing the admiring crowd. No signs of weariness appeared, and each worked away with a hearty will, fully determined to turn his lot of ten feet square the other side up in the shortest possible time. As the work proceeded, much excitement was manifested by the crowd, and when at last one contestant threw his spade upon the ground and declared his work finished, a hearty cheer was shouted from thousands of voices. The first lot was finished in sixteen minutes; and all but one in seventeen minutes.

TROTTING MATCH.

At 10 o'clock, a trotting match came off upon the new course, which was witnessed by an immense crowd, but we have no room for details.

EXERCISES IN THE CHURCH.

At twelve o'clock a procession was formed at the grounds, which proceeded to Rev. Dr. Lamson's church, under the direction of Col. ADAMS, Marshal of the day. Upon arriving at the church, the President of the Society, Hon. M. P. WILDER, made a few remarks.

He said that Divine Providence had allowed them to assemble once more, and that the present year was auspicious for the welfare of the Society. He remarked that the recent additions to the grounds and the success of the present fair, would enable the society to go on with good prospects for the future.

He then spoke of the improvements in agriculture which had taken place, and remarked that the present exhibition had surpassed all others; yet we were not to look at these exhibitions as mere holidays, but as days devoted to the study of agriculture.

Rev. Mr. MERRICK, of Walpole, was then introduced as the orator of the day. He first spoke of the late improvements in agriculture, and then remarked that the course of his argument was the profitableness of farming in this vicinity. Two things were to be considered in this connection. First, the manner in which farmers live; and second, that we always speak of the profits of farming comparatively.

The address was listened to with much attention, but we have no room for details.

THE BANQUET.

After the address, the procession re-formed and marched to the hall, where a sumptuous repast was spread by J. B. Smith. After the invocation of the Divine blessing, the company regaled themselves on the bounty before them.

In front of the President's chair was the motto:

> "From Agriculture are these blessings sent—
> Wealth, Commerce, Honor, Liberty, Content."

After the literary repast was finished, the awards were given, and the festivities were closed by singing an original ode, written by Miss Anne S. Tileston, to the tune of "Auld Lang Syne."

THE MILK VEIN.—We often hear, in the description of cows, the "milk vein" spoken of as though it communicated with the udder and supplied to it the milk. Mr. Stephens says:

"There is also another fallacy in regard to the milking properties of a cow, which should be exposed—I mean the notion of a large milk vein below the belly indicating the milking powers of the cow. The vein, commonly called the milk vein, is the sub-cutaneous vein, and has nothing to do with the udder; it belongs to the respiratory system, and is the means of keeping up an equilibrium in the blood between the fore and hind quarters. This vein certainly indicates a strongly developed vascular system, which is favorable to secretion generally, and no doubt is so to that of the milk among the rest."

WORCESTER COUNTY AGRICULTURAL SOCIETY.

The annual exhibition of the Worcester County Agricultural Society commenced in Worcester, Sept. 26th. The weather was favorable.

The exhibition of cattle was unusually large.

Butter and cheese were largely represented. Cheese, for quantity and quality, excelled any previous exhibition. Ruggles, Nourse, Mason & Co. exhibited Ketchum's mowing machine in actual operation; also Manning's machine was exhibited by Adriance. Among other articles which attracted general attention, was a corn-planter by J. Littlefield, of Leominster; a machine for weeding root crops, by W. J. Ross; model of a water-wheel and windmill on the same principle, by Wm. M. Wheeler, Berlin; fancy stained glass for doors and windows, by J. and J. N. Bartlett, Worcester.

SHOW OF HORSES.

This took place on the Society's grounds, at half-past six o'clock. There were fifty-five animals entered for premiums, mostly of an ordinary character, although there was now and then a superior horse to be seen. The facilities for exhibiting horses outside the pens are very poor. There is no track, and the area is not more than half large enough. Exertions are being made, however, to increase the Society's accommodations in this respect, so as to secure a larger field and a trotting course. If successful, the display of horses no doubt will hereafter form an attractive feature of the Society's exhibition, for there is plenty of material in the county. The field presented an animated appearance during the day, a great many horses and carriages being on the ground, as well as a large number of spectators. But few horses entered for premiums were displayed on the field, most of them being in the pens. There were ten stallions of all ages, eleven geldings, and three pairs of matched horses.

THE DINNER AND ADDRESS.

At two o'clock a goodly company sat down to one of the best public dinners of the season, got up by Augustus N. Marrs, of Worcester. It was laid in the hall of the Society. After the company were seated Rev. Mr. Jones, of the First Baptist church, offered prayer.

The bountiful repast was next attended to, and ample justice rendered to its merits.

The President, Hon. John Brooks, of Princeton, then introduced as the orator of the day, William Brigham Esq., of Boston, who delivered an in teresting address upon the sources of encouragement to the New England farmer at the present time, and what can be done to improve his situation. Mr. Brigham combatted the prevalent notion that New England soils are the poorest in the world, and declared that they excelled those of Canada and the British Provinces, Great Britain, some of the Middle and Southern States, and other parts of our own country. In his opinion, a bright day was dawning upon the New England farmer, for he enjoys the best markets in the world, and the competition from the West is growing feebler, as the soils there are fast being exhausted. He closed with some excellent remarks on the farmer's means of improving his condition. His address was well calculated to allay the restlessness and discontent of our young farmers. We were not able to attend this Exhibition, and can find only a meagre report in the papers.

A YOUNG TOBACCO-CHEWER CURED.

On board ship, one day, we were stowing away the hammocks, when one of the boys came with his hammock on his shoulder, and as he passed, the first lieutenant perceived that he had a quid of tobacco in his mouth.

"What have you got there?" asked the lieutenant, "a gum-boil? Your cheek is much swollen." "No, sir," replied the boy, "there's nothing at all the matter." "Oh! there *must* be; perhaps it is a bad tooth. Open your mouth and let me see."

Very reluctantly the boy opened his mouth, which contained a large roll of tobacco leaf. "I see, I see," said the lieutenant, "poor fellow! how you must suffer! Your mouth wants overhauling, and you teeth cleaning; I wish we had a dentist on board, but as we have not, I will operate as well as I can. Send the armorer up here with his tongs." When the armorer made his appearance with his big tongs, the boy was compelled to open his mouth, while the tobacco was extracted with this rough instrument.

"There now!" said the lieutenant, "I'm sure that you must feel better already. You never could have any appetite with such stuff in your mouth. Now, captain of the after-guard, bring a piece of old canvas and some sand, and clean his teeth nicely."

The captain of the after-guard came forward, and, grinning from ear to ear, put the boy's head between his knees, and scrubbed his teeth well with canvas and sand for two or three minutes.

"There, that will do," said the lieutenant. "Now, my little fellow, take same water and rinse out your mouth, and you will enjoy your breakfast. It was impossible for you to have eaten anything with your mouth in such a filthy condition. When you are troubled in the same way again, come to me, and I will be your dentist." The lad was completely cured, by the ridicule of this occurrence, of the habit of tobacco-chewing.—*Captain Marryatt.*

Milk Clean.—In some careful experiments made by **Dr. Anderson**, the quantity of cream obtained from the first drawn cup of milk was in every case smaller than the last drawn; and those between afforded less or more, as they were nearer the beginning or the end. The quantity of the cream obtained from the last drawn cup from some cows, exceeded that from the first in the proportion of sixteen to one. In others, the proportion was not so great. "Probably," says **Dr. Anderson**, "on an average of a great many cows, it might be found to run *as tne or twelve to one.*" The difference in the quality of the cream was also much greater than the difference in quantity. From this it appears, that the person who by bad milking of his cows, loses but half a pint of his milk, loses in fact about as much cream as would be afforded by six or eight pints at the beginning, and loses, besides, that "*part of the cream which alone can give richness and high flavor to butter.*"

For the New England Farmer.

INSTINCT AND AFFECTION OF BIRDS.

Friend Brown:—You now and then treat us to something very pretty and very pleasant upon birds. Something instructive and interesting, improving to the mind and pleasant to the feelings. It is indeed a charming theme to chat about, and finds a ready response in every bosom.

I, too, have a stray story or so upon the same subject, which properly told, would tend to deepen the growing interest in these dear little familiars. But, alas! I am no story-teller, and shall, I fear, destroy the charm of the incidents in the narration.

Some years since, a son of mine placed upon the ridge-pole of the stable a little box fashioned into a bird-house, which soon became the happy home of a loving pair of blue-birds. Blithely and pleasantly, busied with domestic cares or pleasant songs, they passed their sunny hours; and in the "sear and yellow leaf" of the season, passed to brighter climes. Blithely and pleasantly, with each returning spring, they visit us again; and with the vernal warmth, renew their household duties and household cares. As the days lengthen and the frost lessens, we watch their coming as blessed harbingers of the bright and beautiful; and with pleasing anticipations for the future, or pleasant memories of the past, the eye catches the flutter of their blue dresses, and the ear drinks in the music of their old familiar tones, as from their pilgrimage in the far off sunny clime, they come to us with their songs of the sun. Often in the chill of the early-spring morning we hear their little voices seemingly chiding the tardy blossoms, encouraging the timid buds, or calling to the lingering leaves; and from that little house on the roof, or some tall post or neighboring tree, many a pleasant song falls upon the drowsy ear of spring, while bleak winds are yet howling through leafless boughs, whirling the frosty dust, or nipping the rose and chilling the fingers as with a sickly anticipation of returning warmth, and bloom, and brightness, we dig about the bushes, trellis the vines, or repair the old garden fence. And as those pleasant strains float on the frosty air above and around us, the very breath of the blast seems to melt, the dim sun to grow warmer, and the dull earth to look gayer, in anticipation of the coming gladness of which they are hymning.

What changes may have taken place in their domestic relation during this time, it is quite impossible to say. Externally there was no appearance of suffering or sorrow. Discreetly avoiding all reference to family affairs, little that transpired to disturb the even tenor of their lives ever came to the public ear. They were models in this particular—no gossip, no scandal, no ostentatious display of grief or joy. Softly, with sunshine and with song, the happy hours flew by on downy wings, ruffling no feather of their guileless breasts until the untoward event which I am about to narrate.

After they had been domiciled with us some years, we became possessed of a pet crow. And of all the odd, comical, incomprehensible imps that ever breathed vital air, he was surely chief. There was nothing in the least strange that he did not pry into with the most commendable zeal and the most comical gravity. Nothing outre or out of the way, that did not seem to tickle his fancy. In fact, he had a marvellous eye for the ludicrous; and the quaint devices to which he was constantly resorting to gratify his propensity for fun exceed belief. I do not intend to give you his crowships history at this time; that would require more space than either of us could spare at present. But the very thought of him makes my side ache. Why, the cock of his mischievous eye, or the twist of his comical head, was as good as an afterpiece. Alas, he has fallen! Fallen in his field of glory! A victim to his incorrigible love of "devilment," and a reckless disregard of gunpowder—a defect of his early education. Poor fellow! *Requiescat in pace.*

Shortly after he became so wonted to the place as to be entrusted with his liberty, the little box on the roof struck him as deserving particular attention, and forthwith he commenced one of those comical investigations, which to be appreciated, must have been seen. The poor little songsters, having a young family only a few hours old, became speedily alarmed at these inquisitorial proceedings, and as his crowship, in the progress of his examination, placed himself in dangerous proximity with their little home, they commenced a simultaneous attack upon the daring intruder, with a courage hardly to have been expected from their gentler natures. The scene was singular, and, but for the evident fright and suffering of the agonized parents, would have been laughable in the extreme. The puny little assailants, with their needless alarm, and the great clumsy crow, ducking and bobbing with many awkward manifestations of fear, or throwing up his beak and turning up his great black eyes in the most ludicrous manner, as if deprecating the anger of his little friends, yet maintaining his ground, and when the assault slackened, turning his head awry, and proceeding in his investigations with the most comical gravity. The scrutiny of those curious eyes seemed to the little flutterers fraught with ruin to all their hopes, and, continually renewing the attack, it was quite plain, at length, that they were making the black intruder's position really uncomfortable. Irritated, it may have been, by the pertinacity of the assault, or smarting from the blows that now rained incessantly upon his head, the crow suddenly raised himself, and poising his beak much as one would a pick, drove it full against the breast of that little half-distracted mother, and laid her prostrate at his feet. Still, motionless,—without a flutter! without a quiver! Dead! dead! Yes, the tumult of that little breast was stilled forever! It was a dastardly deed—a murderous deed! And so those great black eyes pronounced it, as with a look of conscious guilt, they melted away amid the clouds, far from the scene of that cruel violence. And he, that little unfortunate that thus survived the desolation of his home, how I grieved with him, as with low, plaintive strains, full of anguish, he fluttered back and forth between the living and the dead; now sitting by the body of his murdered mate, now gazing sadly in upon those little motherless ones left wholly to his care. It was indeed pitiful to behold, and withal, to see that the destitution of his helpless fledglings was prominent in his thoughts even in his great anguish. Humanity might have wept without a blush. Feeling that the sight of the dead only added to his sufferings, I caused the body to be consigned to mother earth. Soon after, perching upon his little house, he poured forth his lamentations in soft, low, wailing notes, such as I have never heard upon any other occasion, and then raising himself high in the air, with a bold, vigorous and continuous flight—acting plainly from some fixed purpose, he rapidly disappeared from sight, far from his usual range and neighborhood. Watching his receding form as he melted away in the blue distance, I was soon lost in conjecture as to his probable purpose; fearful, indeed, that his sad bereavement, and the perplexities of his situation, or more likely, fear of further violence, had quite broken his spirit and driven him forth from his old home and helpless offspring, a wanderer upon the earth. Becoming impatient at his absence, I had just resolved to take those little unfortunates and endeavor to supply to them a parent's place, when his old familiar voice fell upon my ear, and looking up, beheld with astonishment that he had returned, accompanied by another. Yes, marvellous as it appeared, there sat with him on that little box a female companion, that in answer to his earnest appeal, had evidently hastened to his desolate abode to aid him in this, his greatest need. The novelty of her situation, and the fearfulness of the tragedy just revealed to her, very naturally rendered her nervously timid, and it was evidently with palpitating heart that she dropped down from his side to the little doorway, and contemplated her helpless charge. Sorrowfully, with soft notes of encouragement, he sang to her the while, when becoming reassured, she entered upon the discharge of her maternal duties; and from that hour forth continued to perform them with all the solicitude and tenderness of a mother. How singular! This, then, was the object that took him from his home and helpless young at a moment when they seemed menaced with destruction; when the same enemy that had destroyed his gentle mate might return and devour them. True; but, alas! they were threatened with another, and to him, far more certain calamity. It was against that he must provide. Hence his seeming desertion. Cruel suspicion! How lost in admiration should I have watched his flight, had I known the high moral courage that dictated his conduct. Fear for himself,—he knew it not. Desertion of his offspring; it was farthest from his thoughts. Commending them with mournful songs to the great Being that created them, he had gone forth upon the wings of the wind to obtain that assistance with which alone he could preserve them. And she that thus came at his call, a ministering angel! Who was she? In what relation did she stand to this sorrowing family? Where did he find her? How came she disengaged at this time? Or how came he conscious that she was so? These, and many questions and reflections of similar import, passed upon me, as witnessing the marvellous development of a superior intelligence, this beautiful and affecting display of sympathy and love upon the part of creatures hardly deemed worthy a thought. And then again, was this an unusual occurrence, or did the lives of the feathered race present many similar instances? Possibly they might, since but for a mere accident, this most affecting episode in the history of these dear little members of our own household had passed without a witness. And then came that oft-recurring question, What is instinct? Here was an exhibition, not only of moral sentiment, but of mental action, of mental suffering, of memory, of reflection, of deductions and conclusions, quite distinct from the received opinions of instinct. The consciousness of death might well be instinctive, but could that just appreciation of its influence upon the condition of others, or those wise provisions against its effects? A new light dawned upon me. The meaning of that mysterious sympathy which had ever drawn me to them stood revealed. A new charm attached to their innocent lives a moral beauty to their dear selves, far beyond gayety of plume or melody of song. L. P.

East Woburn, Sept., 1855.

THE OLD HOMESTEAD.

Whene'er the happiest time is come
That to the year belongs,
Of uplands bright with harvest gold,
And meadows full of songs—
When fields of yet unripen corn,
And daily garnering stores,
Remind the thrifty husbandman
Of ampler thrashing floors—
How pleasant from the din and dust
Of the thoroughfare aloof,
Seems the old-fashioned homestead,
With steep and mossy roof!

When home the woodman plods, with axe
Upon his shoulder swung,
And, in the knotted apple-tree
Are scythe and sickle hung;
When light the swallows twitter
'Neath the rafters of the shed,
And the table on the ivied porch
With decent care is spread—
The heart is light and freer
Than beats in populous town,
In the old-fashioned homestead,
With gables sharp and brown!

When the flowers of summer perish
In the cold and bitter rain,
And the little birds with weary wings
Have gone across the main;
When curls the blue smoke upward—
Up towards the bluer sky,
And cold along the naked hills,
And white the snow-drifts lie—
In tales of love and glory,
Is forgot the cloud and storm,
In the old-fashioned homestead,
With hearth-stone large and warm.

For the New England Farmer.

A PLOW THAT DON'T CLOG.

Is there any plow made that will not clog in clay soil? The soil of the farm on which I am located, is a clay loam; in many places the clay predominates. The plows used in this country soon become loaded, so that it is necessary to clean the mold-board every furrow; and for this purpose the plowman always carries a small spade or wooden shovel, somewhat after the manner of the Egyptians. This takes a good deal of time, and increases the labor very much. If there is a plow that will clean itself, I should like to know it, and the price.

AQUILA.

For the New England Farmer.

ADVANCEMENT OF AGRICULTURE.

Statistics show that while our cities have increased rapidly in population for the last few years, our country towns have many of them decreased in population. The rush for the city has been so great, that the tillers of the soil have become few, hence the general complaint of dear bread in the land. While monopolists and speculators have to bear their share of blame, the farmer is receiving good pay for his labor, and is beginning to be considered a useful and even indispensable member of society.

Whatever public opinion may *have* been, it is now generally acknowledged, that the prosperity of agriculture is indispensable to the future prosperity of our country. The political and miscellaneous press, all over our land, are rejoicing at the abundant crops, and the present indications of prosperity. The young farmer has the promise of a life of usefulness and happiness to encourage him in his labors; and if usefulness and happiness are the grand objects of life, what occupation offers greater rewards than that of the farmer? There is a class of farmers, that believe in progression and improvement in every thing but farming. They follow in the footsteps of antiquity, and if any one suggests a different way of proceeding, they think him *non compos mentis*. They continue to drain their barn-yards into the road—twice a year, all the bones and beeves' feet are collected and thrown into the brook or millpond. They despise new fashioned corn-shellers, and say that the old way of shelling corn, with the fire shovel and bread trough, is best. They advise their sons to look to some other business than farming, for a living, if they ever want to become anything, and even go so far as to predict that farming will be abandoned in Massachusetts as soon as the fertile regions of the West are all settled.

In view of these facts, is it so much wonder that farmers have lived for fifty years and brought up families of children on good farms that produce little or no fruit? Their trees, that would grow in spite of cattle and neglect, bear very inferior fruit, —their trunks are entwined with ivy, and dead limbs are allowed to remain for years, without being removed. It is evident such farmers have had their day; the work of revolution is already commenced; it is beginning to be asserted that agriculture is governed by the same laws of improvement, as other occupations. This fact has been most emphatically asserted by the mechanic for the past few years in the invaluable machines and improved tools for the use of the farmer. Many of these improvements are so evident, that they have been generally introduced, although strenuously opposed at first by the class, for whose benefit they were invented. Among this class of inventions, may be mentioned the horse-rake, which, although used but a few weeks in the year, is a saving to our farmers of thousands of dollars annually. Yet there are inventions thought by a few to be of far greater value than the one just mentioned, which are engaged in a seemingly doubtful struggle for favor, among their should-be friends. This struggle for favor would not only be doubtful but almost hopeless, if they had not the aid of a powerful ally, that insists in having their merits fairly, and impartially tested. This powerful ally of the mechanic, which is no other than the agricultural press, is gradually gaining the confidence and favor, of the agricultural community.

This is considered one of the most promising signs of the times. *Real farmers* have taken the matter in hand, and we now have publications that are beyond suspicion in the interest of the agriculturist. The return to the farm of men who, having tried life in the city and California, have found that the life of the farmer will compare favorably with the rest of mankind, is exerting a beneficial influence. It leads to contentment, which is so essential a requisite to happiness. It leads to improvement, as the men thus returning, in most cases, have not failed to observe that the wealth and prosperity gained by the manufacturer has been attained by the use of all publications and inventions intended for his benefit, and who, believing the same means equally applicable to agriculture, have not failed to bring them with them. These influences are steadily and unitedly at work for the advancement of agriculture. May they long continue in their beneficent avocation. YEOMAN.

Brookfield, Sept., 1855.

NEWFOUNDLAND DOGS AT NEWFOUNDLAND.

[A writer in the *New York Herald*, who was one of the excursionists on the late telegraph expedition to Newfoundland, thus expatiates on the dogs of that uninviting country:]

Any one who has ever visited St. Johns must have observed the large number of Newfoundland dogs with which its streets are beset. You meet them wherever you turn; they lie across the pathway, and sometimes make their bed in the middle of the road; they stand like sentinels at every door, and although they never dispute your passage, they look at you with an inquiring gaze, as if they desired to know your business. In winter they are employed by the poor in drawing wood in sledges, for which they seem peculiarly adapted by their strength and docility. Dr. Kane took twenty of them with him on leaving St. Johns, as they are said to be as good, if not better, than the Esquimaux dogs, in making journeys over the ice. A perfect dog mania broke out among our company, and an extensive trade in pups was opened with the natives. Every person seemed determined to have one, and the consequence was, that we had about as many dogs on our return, as passengers. Dogs of all sizes and ages, from a month to three years old, were carried off unresisting victims into exile. Whatever doubt there might be as to the purity of the breed, there could be no dispute as to their being Newfoundland dogs, and with many, that seemed to be sufficient. Two of my friends bought a pair of them, twins, and named them Telegraph and Cable, in their enthusiasm for the great enterprise. The pure breed, it is said, is fast becoming extinct in St. Johns; but if I should judge from the large number of "full bloods" that were shown to me, I should be strongly inclined to doubt the truth of that statement.

Morrison's Red Apple.—Our friend, N. P. **Morrison**, of Somerville, "The Apple Man," has sent us four of his Red Seedlings. They are more beautiful to the eye than any other apple we have seen, and as pleasant to the taste as to behold them. He says the tree is a thrifty grower, and good bearer, and that the fruit will keep as well as the Baldwin. The tree originated in Medfield, on the farm of a Mr. Fisher, and the fruit has been well tested by Mr. Morrison, who thinks it the best apple yet known. There are no doubts on our own mind but it is an apple of very high order.

For the New England Farmer.

LARGE OR SMALL POTATOES—WHICH?

Mr. Editor:—For years, at different times, there has been much discussion and a good deal written on the subject of seed potatoes. Which were best to plant, the large or small? Like every other question, this has two sides to it, and each side has its respective advocates. So far as talk is concerned, it matters little to either party which gains the day, but in an economical point, as affecting the farmer's purse, it is quite otherwise, and is a matter of some importance which wins. For many years past, this great article of human sustenance has commanded a high price to what it formerly bore; indeed, for the past two or three years, I am inclined to the opinion, that few articles of food have cost more to its consumers—comparing them by the ratio of nutriment afforded. Then again, it is extremely difficult for families to be economical in their use, their former cheapness has produced a habit of waste in their whole management—though the past few years has produced a praiseworthy change in this particular. I would not pretend to say that the "Small Potato" question is an exception to the great law of nature—that like produces like—this is an acknowledged principle throughout all the operations of nature. But I do say, that small potatoes will produce large ones, and that pretty uniformly. I have tried the experiment three times, and with success.

The first time, I used small potatoes and large ones together, the large ones being cut to a very small size before planting. I remember perfectly well, that my men at the time declared that my experiment would be a failure; that no field seeded so sparingly as that was, would produce a crop; none of the potatoes used would average over a square inch, while the majority would hardly exceed half an inch. One object was—not so much to get a good crop of potatoes—but to have the land cultivated among my trees. About one acre was planted. No extra pains was taken with them, and in the fall, the result was over one hundred bushels of good sized, handsome potatoes. The actual ground occupied by the crop was not much over half an acre, certainly not three-quarters. My men and neighbors were astonished at the result. Twice since I have repeated this experiment, and with like results. The last time with whole small potatoes, and during the past week have had them dug, and many of them will weigh half a pound, and a large number of them more, and very few like their parents among them. Now if these same "small potatoes" should be planted from year to year, I do not know what effect it might produce. Probably the great law of nature would assert its rights, and "small potatoes" be the result.

There is no question but what farmers seed this essential crop too heavily, much more than is needed, and much money might be saved to them by adopting the small idea system. It is certainly worthy of more consideration than has been given to it. Another idea I wish to throw out, though rather foreign to the intentions of this article, but while my escritoire is so handy, will venture to do so.

It is this: of saving for seed those parts of the crop which are fairest and come to maturity soonest. The idea is an old one, but very apt to be forgotten, even by the best of farmers—those careful and shrewd tillers of the soil. By carrying out this plan from year to year, there is no doubt but what, with some crops, several weeks might be gained in bringing them to maturity. Any one with half an eye, cannot but see the great benefit which would be derived from this, and there is nothing improbable about it, but on the contrary, reason and nature coincide with its truth. My motto and advice to the farmer is,—use the head more, and —— why, the hands none the less. At a future time, Mr. Editor, with your permission, I may revert to this important matter again. *Interdum stultus bene loquitur.*

King Oak Hill, Sept., 1855. T. Q. Norton.

For the New England Farmer.

BEANS AND POTATOES—A GREAT YIELD.

Mr. Editor:—I give you the following facts, which show that the present season amply remunerates the husbandman for his labor and toil, by a varied and bountiful harvest.

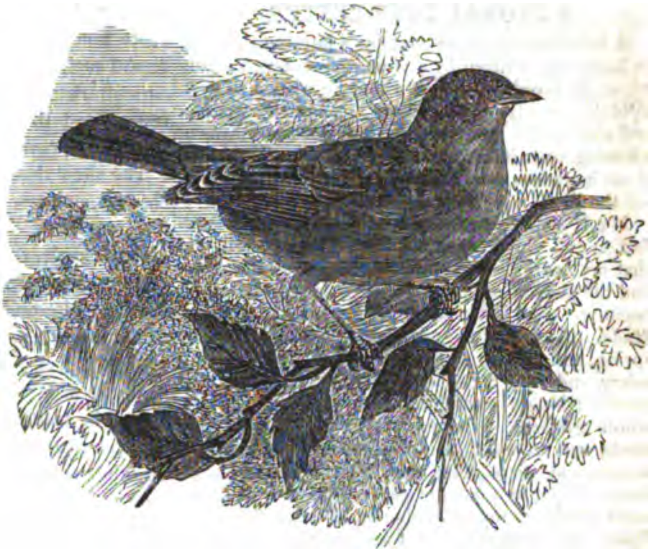
Mr. Wm. C. Patch, of this town, has taken from his garden a single bean vine from which he picked and shelled twelve hundred and seventeen beans, all well formed and full grown; the product of a single cranberry bean.

Mr. J. P. Knowlton, in harvesting his potatoes, selected one, called the "Kinsman Red," which weighed two pounds and a quarter, tha vines of which measured seven feet in length. The yield is about twelve hills to a bushel. The potatoes are very large and fair, and of an excellent quality. The good quality of potatoes, this season, is a subject of remark everywhere about us. Who can beat this?

Hamilton, Sept. 30. Z. A. Appleton.

Grasshopper Traps. — In our rides in the grasshopper country, we saw *thousands* of the deep holes which had been dug in the earth by the Indians, to entrap their luxurious food. These holes contain about a bushel and a half, and we believe we saw holes enough in Yuba, Butte and Sutter counties, to have collected *fifty thousand bushels* of grasshoppers. The Indians will grow fat this winter.—*California Times.*

THE HEDGE SPARROW.



This bird belongs to the order of *Passeres* (sparrows); tribe—*Dentirostres;* family—*Luscinidæ;* sub-family, *Acceitorinæ.* It is one of the commonest English birds, and closely resembles the common sparrow in appearance. The nest is built in holes, and contains five blue eggs. Its song is simple and very pleasing, and might prompt one to exclaim with good old Izaac Walton, "Lord, what music hast thou provided for the saints in heaven, when thou affordest bad men such music on earth."

The common European sparrow is almost domesticated in that portion of the globe, frequenting the habitations of man, even in the midst of populous cities, and nestling under the eaves of houses, in holes in the walls, in pots placed for their use, &c. It is of a robust form, and has a stouter bill than the majority of sparrows. In many districts it is so numerous as to do great injury to the grain fields. Its voracity is extreme; neither can its flesh be applied to any useful purpose.

We have numerous species of sparrows in the United States. They are readily distinguished from other small birds by the short, conical bill, with cutting edges, which seems peculiarly adapted to the purpose of freeing seed of the hulls.

The above is pobably the description of an English writer, and we discover in it a pretty good description of our well known and musical little friend, the *Warbling Sparrow;* he is one of our earliest visiters in the Spring, sometimes coming as early as Febuary, but in March may be daily seen among the rank weeds in the garden, or among the brush that has been thrown into heaps about the grounds. There, hopping among the branches, occasionally flitting away to the field or the garden, he pours out the sweetest song of the early spring, often, when the March winds are roaring through the leafless trees, or flurries of snow are whitening the ground. But it is where the elements are quiet, and the sun shines brightly into the tangled brush around him, that he utters his sweetest notes, and attracts every ear.

A FLORAL LOVE-LETTER.

A late English paper contains a letter purporting to have been written by a young gardener to a lady whom he loved, and with whom he wished to wed. Whether exactly such a letter was actually written, and sent by the gardener, we have not the means of knowing, or is it of much consequence. The letter is an ingenious one, by whatever means it came to see the light. It reads thus:

My Rose, Mary:—As you are the *pink* of perfection and the *blossom* of May, I wish to tell you that my *heart's ease* has been torn up by the *roots*, and the *peas* of my *holm* entirely destroyed, since I began to *pine* after *yew*. My name is William *Budd*. At first I was poor, but by *shooting* in the spring, and raising a *carnation* fast, I obtained a *celery*, and by a little *cabbaging*, &c., I *rose* to be master (though something like a *creeper*) of the whole *garden*. I have now full command of the *stocks* and the *mint*; I can raise *ante-mone* from a *penny-royal* to a *plum*, and what my expenditure *leaves* I put in a *box* for *yew*. If I may as a *coxcomb* speak of myself, I should say that I am the *flower* of manhood, that I am neither a *standard* nor a *dwarf*, a *mushroon* nor a *May pole*. My nose is of a *turnip-reddish* kind, and my locks hang in *clusters* round my *ears*. I am often in the company of *rakes*, and rather fond of *vines* and *shrubs*, which my *elders* reprove me for; as I had better *berry* all this, and say that I have a *Windsor beau* and that I have some *London pride*, and as I am a *branch* of a good *stock* with a portly *bearing*, I well know when and where to make my *bough*. So *lett-uce* act for ourselves, and fix an early day for *grafting* your fate with mine. I am certain that we should make a very nice *pear*, and never repent, even when we become *sage* by *thyme*. *Yew* would be the *balm* of my life, and I would be the *balsam* of yours, so that the people who would call us *green* now, would call us *evergreen* hereafter. And now *sweet peas* be with *yew*; if he who tried it *tares* me from *yew*, I shall become a *melon cauliflower*, and wither away; my tongue will always be a *scarlet runner* in your praise; for I have planted my hope in *yew*, and now I only live for the *thyme* when I may hear from your own *tu-lips*, that I am your own *sweet William*, and not your

Weeping Will-o."

Officers of the Vermont State Agricultural Society.

President—Frederick Holbrook, Brattleboro'.

Vice Presidents—E. Hammond, Middlebury; H. S. Morse, Shelburne; Henry Keyes, Newbury; Solomon W. Jewett, Weybridge.

Corresponding Secretary—J. A. Beckwith, Middlebury.

Recording Secretary—Charles Cummings, Brattleboro.'

Treasurer—Edward Seymour, Vergennes.

Auditor—F. E. Woodbridge, Vergennes.

BERKSHIRE COUNTY CATTLE SHOW.

The 45th Anniversary of the Berkshire Agricultural Society took place at Pittsfield, on the 3d, 4th and 5th days of October. All the exhibitions, and all the exercises of the whole three days, including the Ball on the evening of the third day, were on the grounds of the Society. It was our duty, as it was our pleasure, to attend this exhibition as a Delegate from the State Board of Agriculture, and to record such observations as would be beneficial to agriculturists of other portions of the State, if transmitted through the volume which comprises the annual transactions of the Board.

The show this year was the first under important changes, and new arrangements of the Society; they had purchased and enclosed thirty acres of land, erected yards, stables, laid out and graded a fine trotting course, introduced water in abundance, and constructed a building in the form of a T, each part ninety feet in length, and about fifty feet wide. On the roof is a deck with balustrades, affording space for some ten or fifteen hundred persons, from which position the trotting, the equestrian performances by the ladies, the foot-races, the plowing, drawing, and all other out-of-door exercises, could be seen. So from this spot was one of the loveliest panoramas ever presented to the eye. Here the Pontoosuc comes ambling along through the narrow valleys, turning wheels and watering meadows as it flows, and giving examples of animated industry in its babbling course. There flows the Housatonic, enlarged and strengthened by the contributions of the Pontoosuc, and swelling out into the magnitude of a river, gladdening the manufacturer's as well as the farmer's hopes, and fertilizing the waiting intervals, green slopes and shady banks, as it winds along. Yonder are the hills on every side. On the north, old Greylock lifts its hoary head, still venerable and august, but young as when the oldest saw it first, dashing the battling elements from its sides, as the lion shakes the night-drops from his impervious mane. There are the hills which circumscribe and mark out the amphitheatre of which these grounds are the centre—their sides covered with the deep forest, or dotted with rock maples, black birch, or groups of hemlock, perhaps the most beautiful evergreen of our climate, as well as among the most symmetrical and elegant of trees. Down the sides of these "Chrystal Hills" pour limpid streams, where sheep and milch cows slake their thirst, and, checked in their course, with gathered strength they turn the wheels that grind the corn, or saw the logs that they have nourished through many years. And now that autumn frosts have touched with icy fingers the trembling leaves, they gleam in colors of every hue, gold and scarlet, purple and orange, each vieing in brilliancy with the other, and forming a richness of shade and coloring never imitated by man, and probably unequalled in any other clime. Nearer, shoot up the white spires of the village churches, while the rich tones of a bell, or the busy hum of industry, occasionally meets the ear. Such is but a feeble portraiture of the spot selected by our Berkshire friends, upon which annually to gather with their wives and children and keep *The Farmers' Festival.* A better selection we have never seen, nor a wiser disposition of all the adjuncts which must surround it.

As will be seen above, this exhibition made the *forty-fifth* of this time-honored and flourishing Society—a Society which has been instrumental in continuing and greatly increasing the fertility of the lovely valleys and the noble hills which are so beautifully planted throughout the county. An intelligent and prosperous farmer remarked, that he had taken the first premiums in nearly every class of the exhibitions, and was happy to say that he owed whatever of success and skill he had acquired to the encouragements and influences of this Society! The condition of the farms, and the *homes* of the farmers, bear evidence of the truthfulness of the remark. But in point of seniority, the "Old Berkshire" must yield the palm to Middlesex. The "Middlesex Society" was incorporated on the twenty-eighth of February, 1803, by the name of the "*Western Society of Middlesex Husbandmen.*" It had existed as an unincorporated association, under the same name, from the year 1794; on the 24th of January, 1820, it was changed by an Act of the Legislature, to that of the "Society of Middlesex Husbandmen and Manufacturers," and subsequent to that time—as the manufacturers had little to do with it—to "The Middlesex Agricultural Society," which is its present title. It has now two lusty daughters, one on each side of her, which bid fair soon to come up to the full proportions of the mother, and *perhaps*, look a little more *dressy* and *important* than the good old dame herself. But one Agricultural Society now existing within the commonwealth takes precedence of the Middlesex by virtue of seniority,—"The Massachusetts Society for Promoting Agriculture," which was incorporated in 1792, and whose members were made by the Act incorporating the Western Society of Middlesex Husbandmen, honorary members of that corporation, and entitled to be present and vote at its meetings.

And now, Mistress Berkshire, having set the historical matters right, we propose to go on with some account of your doings.

Wednesday, the first day of the show, was pleasant; the elements were propitious, the roads were good, and the temperature so genial as to invite even invalids abroad,—and the Fair opened with the most flattering prospects. The object of this day was to show all kinds of animals, except horses, that were to be exhibited for premiums, and all manufactured articles, implements and machinery.

The number of neat cattle was not large, or in any way remarkable in appearance, and were all of the common breeds, or with only a slight admixture of foreign blood. Swine were also quite limited in number, and the show of poultry was not large. The horses tried the track, as also did ladies and gentlemen in easy carriages. The arrangement of fruits, vegetables, harnesses, counterpanes, quilts, embroidery, capes, collars and skirts, went on in the great hall; pedlers made good speeches, selling their whips and words at poverty prices, showmen banged the banjo and stirred up their poor animals with sharp sticks; while the restless cattle lowed for their stancheons and their evening feed at home! So the day waned away. The departing rays fell with their soft beams upon the varied foliage on the hills, lighting for a few lingering moments, nature's great cathedral, the woods, into a gorgeousness of beauty, far more splendid than the genius of man has, or ever can devise. Light faded, men, women and children departed; the fandango ceased to move, gloom rested on the hills, few sounds were heard, but the measured tread of the tired policeman as he went his weary rounds, and night was supreme over the late animated scene.

In the language of one of the "fast gentlemen with fast nags," *Thursday*, the second day, was a "stunner!" The wind, surcharged with a cold, sticky vapor, moved lazily along, clinging to man and beast, like the shirt of Nessus; but the pluck of Old Berkshire was up, and rain or shine, they were determined to have a good time. So the horses were brought out, and encouraged into some pretty lively paces, while the spectators shivered and took the dismal droppings of about a thousand indigo colored cotton umbrellas. The great halls were crowded with men, women and children, who examined and commented upon each article about six times over, and then counted the number of boards in the roof and braces in the frame-work of the building, and wondered if it never would be done raining. But before noon it became evident that rain and cold and mud would get the mastery, and drive them home. The horses dropt their ears and hung their heads in sleepy listlessness, and indicated the strongest disposition to "turn tail to the wind." Men's hats and coats looked seedy and old; the borrowed feathers in bonnets hung heavy and meagre, while skirts were wofully bedrabbled, and clung too close to ankles unused to touch the soil. It was a failure. The elements won the race and triumphed in it, leaving every nag behind, drenched, dismal, and discouraged. Then the hotels, bright parlors, and inviting sitting-rooms, opened their doors and welcomed tired visitors to their warm and hospitable precincts, while fitful gusts strewed the ground with leaves or drove the rain against the glass. A darker night than the first brooded over the earth, and the hills and valleys were alike lost in the impenetrable gloom. So the second day closed upon the 45th Anniversary of the Old Berkshire Society.

But *Friday*—who says that Friday is always an unlucky day?—Friday morning, bright and early, the sun came flashing over the eastern hills, and sent his warm and cheering beams into every nook of that rich and lovely valley. Up went the mists from the meadows and hill-tops, and once more shone the gorgeous dyes on their sides; the cocks crowed and strutted in their harems, with unbounded gusto, and geese and ducks, and pigs and horses and oxen and calves and sheep, each lent a note so as to render the harmony complete! Children clapped their little hands in delight in view of the ride, and ginger-bread and buns, and music and races that were before them, and so the mothers were happy and the fathers glad; the whole world of Berkshire turned out, the gates were thrown open, and the *Success* of the 45th Fair became a "fixed fact."

The first exercise was that of Plowing. The bills stated that the teams would start at "9 o'clock A. M.," but it was nearly 11 before the chains were straightened. Thirteen teams plowed, on a gravelly loam, and did the work moderately well. The plows used were all single, and one of them had a cast iron beam. There was but one pair of oxen which exhibited anything but the most common training, and they were also the finest in proportions, being attentive to the driver's language, strong, and quick in their motions. A pair of black, and a pair of grey horses, were also well-matched, and well-trained. The black pair we afterwards saw attached to a carriage, where they did themselves and driver as much credit, as they did with the plow. Six inches in depth, and twelve in width, were required. The ground was unfavorable in two particulars—it was ridgy and full of pebbles, so that it would be difficult to make handsome work, even with skilful teams and men.

Then came the riding on horseback around the course, by ladies, and a very pleasant and attractive feature it was—and then the

Exercises in the Great Hall.

These consisted of excellent music by the Longmeadow band, and an address, by the Hon. Julius Rockwell, President of the Society. It is a common law in the Society, that the President shall continue to act as such two years, and on the retiring year shall deliver the address, and an excellent law it is. He took for his subject, The thoughts of the young Farmer, and showed first, that the lessons and habits of early life are never forgotten. Then he spoke of his initiatory steps into the art and mystery of farming, such as yoking, and breaking the steers, and other incidents illustrative of the whole;—and of his choice of occupation a little later. He said a thorough training on the farm was *capital* to the young farmer, as education is capital to the doctor, lawyer, or clergyman. He spoke of the professions, gave a budget of good reasons, for not going West, painted the autumnal scenery of New England in glowing colors, spoke of the resources of the county, recited the bounties of the commonwealth, then most felicitously married the Young Farmer to one of the handsome, healthy, well-educated, and intelligent daughters of the New England hills, and closed his address. A brief address, by the Editor of the *New England Farmer*, and another by Dr. H. D. Childs, formerly Lieut. Governor of the Commonwealth, followed, and then the beautiful silver plate, amounting in value to hundreds of dollars, was distributed to the individuals to whom it had been awarded by the various committees. Afterwards there was trotting on the course, and the Fair closed, by a grand ball, in the evening, in the great hall on the Society's grounds.

The exhibition of fruits and vegetables was meagre; that of butter and cheese was large, and of the finest quality; of domestic manufactures there was a considerable display of carpets, rugs, hosiery, and embroidered work, such as collars, skirts, &c. A few loaves of bread only were seen, and that of quite an ordinary appearance.

The exhibition, on the whole, was one of great merit and interest, though in some respects deficient. There was an evident want of taste and arrangement in the articles shown in the Hall, and of punctuality in the time of commencing the several exercises of the day; while the choice of location, the construction and arrangement of buildings, the mode of distributing premiums, and the excellent butter and cheese presented, are all worthy the highest commendation.

For the New England Farmer.

HEMLOCK HEDGES.

Respected Friends:—I should be very glad to get a little information of you or any of your subscribers concerning how to obtain a hemlock hedge; whether to set the young trees, or get it from the seed. I have heard of such a hedge, but do not know how to obtain one easy and right. An answer at your convenience would oblige me much.

South Lee, Sept., 1855. C. J. P.

Remarks.—Either way. But by setting young plants you gain much time. We have seen some handsome hedges of the hemlock. They may be pruned into beautiful forms.

Manure.—If land is too sandy, the best manure is clay and leached ashes. These will puddle it, and render it tenacious of water. If it is heavy clay, it requires sand to render it porous. If it is a muck, it requires lime to neutralize the acid, and destroy the antiseptic or resinous quality of the soil.

For the New England Farmer.

CHEMISTRY—No. 3.

DIGESTION.

No part of chemical knowledge can be of more interest to the general reader than that which treats of the laws which govern the digestion of our food.

Digestion is the process of the reduction of our food to its simple state, separating element from element, and reducing all to a liquid state. It is no more essential that the chemist in his laboratory finely pulverize any solid body before he attempts to dissolve it, than it is that our food be well masticated before swallowing. "If the preliminary work of mastication and insalivation be neglected, the stomach has to do the whole work of preparation, as well as to accomplish the digestion; thus more is thrown upon it than it is adapted to bear; it becomes overworked, and manifests its fatigue by not being able to discharge its own duty properly." Hence the necessity of thorough mastication. Food well chewed is half digested, and will do a man three times the good that it will, swallowed whole.

Nature has furnished us with all the organs necessary to complete thorough mastication and digestion, and if they do not perform their duty, the fault is our own. The air we breathe is charged with a certain substance necessary to digestion, (oxygen,) and this is taken up at every breath, and the carbon returned to the air, to feed vegetation, and *vice versa*.

Dr. Beaumont made some experiments relative to the time it took the various kinds of food to digest, and the following table shows the result of the same:

Kind.	*How prepared.*	*Time. h. m.*	*Kind.*	*How prepared.*	*Time. h. m.*
Rice,	boiled,	1.	Pork, salted,	raw,	3.
Pig's feet, soused,	"	1.	Soup, chicken,	boiled,	3.
Tripe,	"	1.	Oysters, fresh,	roasted,	3.15
Trout, salmon, fresh,	"	1.30	Pork, salted,	broiled,	3.15
" " "	fried,	1.30	" steak,	"	3.15
Apples, sweet, mellow,		1.30	Corn bread,	baked,	3.15
Venison, steak,	broiled,	1.35	Mutton, fresh,	roasted,	3.15
Sago,	boiled,	1.40	Carrots, orange,	boiled,	3.15
Apples, sour, mellow,		2.	Sausage, fresh,	broiled,	3.20
Cabbage, with vinegar,		2.	Beef, lean, dry,	roasted,	3.30
Codfish, dry,	boiled,	2.	Bread, wheat,	baked,	3.30
Eggs, fresh,	raw,	2.	Butter,	melted,	3.30
Liver, beef's,	broiled,	2.	Cheese, old strong,	raw,	3.30
Milk,	boiled,	2.	Eggs, fresh,	hard boiled,	3.30
Tapioca,	"	2.	" "	fried,	3.30
Milk,	raw,	2.15	Flounders, fresh,	"	3.30
Turkey, wild,	roasted,	2.15	Oysters, fresh,	stewed,	3.30
" "	boiled,	2.28	Potatoes, Irish,	boiled,	3.30
" domestic,	roasted,	2.30	Soup, mutton,	"	3.30
Potatoes, Irish,	baked,	2.30	" oyster,	"	3.30
Parsnips,	boiled,	2.30	Turnip, flat,	"	3.30
Pig, sucking,	roasted,	2.30	Beets,	"	3.45
Meat, hashed with vegetables,	warm,	2.30	Corn and beans,	"	3.45
Lamb, fresh,	broiled,	2.30	Beef, fresh, lean,	fried,	4.
Goose,	roasted,	2.30	Fowl, domestic,	boiled,	4.
Cake, sponge,	baked,	2.30	" "	roasted,	4.
Cabbage, head,	raw,	2.30	Veal, fresh,	broiled,	4.
Beans, pod,	boiled,	2.30	Soup, beef, vegetables and bread,	boiled,	4.
Custard,	baked,	2.45	Salmon trout,	"	4.
Chicken,	fricasseed,	2.45	Heart, animal,	fried,	4.
Apples, sour, hard,	raw,	2.50	Beef, old, salted,	boiled,	4.15
Oysters, fresh,	"	2.55	Pork, salted,	fried,	4.15
Bass, fresh,	broiled,	3.	Cabbage,	boiled,	4.30
Beef, lean, rare,	roasted,	3.	Ducks, wild,	roasted,	4.30
" steak, "	broiled,	3.	Pork, salted,	boiled,	4.30
Corn cake,	baked,	3.	Suet, mutton,	"	4.30
Dumpling, apple,	boiled,	3.	Veal, fresh,	fried,	4.30
Eggs, fresh,	boiled soft,	3.	Pork,	roasted,	5.15
Mutton, fresh,	broiled,	3.	Suet, beef, fresh,	boiled,	5.30
" "	boiled,	3.	Tendon,	"	5.30

Do we wish for something light and easily digested, chemistry tells us what it is; and if we wish for something that will "stick by the ribs," she is also ready to speak. S. TENNEY.

West Poland, Me., 1855.

A FINE GRAPE.

At the Show at Framingham, Sept. 19, we saw upon the tables a fine looking grape, a little lighter in color than the Catawba, some of the bunches quite compact, but generally somewhat straggling, and the berries and bunches of good size. They were raised and handed in by JAMES W. CLARK, Esq., of Framingham. He says the vine originated in his garden five years ago, from the seed, and was transplanted into a shaded and moist border. The vine grows vigorously, has never been protected in winter, and the ripe fruit holds on well. He thinks it a cross between the native and Catawba, as these two grew near and intermingled their branches near where the new seedling came up. Mr. Clark adds in a note,—"I claim nothing for it, except that it is a superior native, and in a fine location, it will ripen before the autumn fruits." He is right. It is certainly a very superior grape.

EXPERIMENTING WITH MEADOW MUCK.

I have recently witnessed the results of an experiment with meadow muck, which may interest some of your agricultural readers.

This experiment was made on the farm of Rev. Henry Ward Beecher, in Lenox, under the care of Mr. O. C. Bullard, his brother-in-law.

Last winter, Mr. Bullard was getting out muck from an extensive meadow, for his barn-yard and compost heap. As an experiment, he spread a quantity—between one and two small sled loads—green for the meadow, upon a spot one rod by two, of a mowing field. It was laid on the top of the snow, and an inch and a half or two inches thick.

This spring he covered another similar space. This is a large field, sloping to the east, that has been laid down to herds grass several years. There is a good deal of the white weed or daisy over most of the field, and there are numerous little spots where the grass seems to be killed out, and which are covered by a coat of moss.

On the 30th of June, I visited this field to note the effect of this experiment. The spot where muck was spread on the snow in the *Winter*, is covered with a thick, rank, deep green growth of herds grass and clover, and will give at least *two-thirds* more hay than any of the field around it. It can be seen at a distance, like the spots in the field where there have been manure heaps. The ground is perfectly covered with the grass, giving no signs of moss. This luxuriant growth is overtopping the daisy, none of which is yet in blossom, while in all the rest of the extensive fields, it is in full bloom.

The spot where the muck was spread this spring, is distinctly seen; but the crop of grass is not more than a quarter or a third larger than the average around it.

The result of this experiment seems to show, that the muck spread in the *Winter*, together with the snow that it was spread upon, operated as a *mulching* to protect the roots of the grass from the action of the frost. None of it is thrown out of the ground or winter-killed. It has overcome and killed out the moss, and retarded, if not in a great measure destroyed, the daisy, and it has also imparted mellowness, and, no doubt, more or less richness to the soil.—*Traveller.*

PICTURE OF THE DEPARTED.

What would we give?—what would we not give, in some circumstances, for a good portrait of a departed friend?

So thought a lad, a mere boy, of this city, (son of Mr. Jonathan Dearborn,) who had lately lost a beloved and beautiful little sister of eight summers. The family had daguerreotypes of every member but the departed, strange to say. And the friends, all but the boy, gave it up, as hopeless.

He insisted that a good painter might, under his direction, and from his recollections, create a likeness. And against all advice and remonstrance, he went to Boston on this errand, carrying only a lock of the little girl's hair, and his own vivid, undying mental picture of the loved and lost.

His plan was, to select one feature from one picture, and another from another, as he could find them in picture galleries in Boston, and combine and alter the whole, by his dictation to a finished artist.

The artists there admired the boy's enthusiasm, and the owners of galleries gladly made him welcome to their pictures for his purpose; but doubted unanimously and disbelieved almost universally, that a likeness could be thus produced.

At last one artist made the trial; and after days of patient toil, gave it up as impracticable. But the boy's faith stumbled not. He enlisted the friendship of Mr. J. A. Whipple, of 96 Washington street, and procured his services to take a photograph from the unfinished and condemned portrait by the first painter. With this, with the lock of hair, and with his own self-reliant knowledge of the fact to be reproduced, he went to another painter, Mr. Ramson, of 7½ Tremont Row, and stated his case; Ramson replied that a portrait could not be obtained under the circumstances, and that he never heard of such a thing; but he at length persuaded him to commence a picture. After working a long time on it the painter threw aside the picture in despair, thinking it was impossible to paint a portrait of one he had never seen, and of whose features he had seen no copy. The boy insisted that it could be done; saying I *know* I can get such a correct picture of my sister as I desire. By the perseverance, determination and persuasion of the boy, the painter was induced to try again, and in his second attempt obtained a most beautiful and correct picture of the little girl, which has been recognized at once by all who knew her, as an excellent likeness; and which is also a good painting.

The boy has his reward; the artist deserves great credit for his skill and patience.—*Portsmouth Chronicle.*

The Veterinary Journal.—We have received the first number of a work with this title, edited by Dr. George H. Dadd, a gentleman whose devotion to veterinary science is probably unsurpassed by that of any other person in the country, and whose qualifications are equal to his zeal. The work is in octavo form, neatly printed and covered, and is filled with instructive matter. We wish the Dr. and his undertaking abundant success, and advise those who keep valuable stock to read his journal.

For the New England Farmer.

LARGE AND SMALL POTATOES.

Friend Brown:—I send you a statement of results from a piece of potatoes I planted on the 15th day of April, 1855, on one acre of land. In 1854 it was sown with spring wheat and seeded, but did not take seed; so I plowed it on the 13th day of April, about ten inches deep, and some times deeper if the frost would let it. It was well harrowed, and furrowed out 2½ feet apart. I manured it with horse manure, a good forkful in a hill. Potatoes dropped on the manure, and covered about 2½ inches deep. Description of seed as planted April 15th:

Lot A—¼ an Acre.

Planted 2½ bushels small or hog potatoes, worth 50 cents per bushel, $1,25.

Lot B—¼ an Acre.

Planted 4 bushels medium size potatoes, worth $1 per bushel, $4.

Lot C—¼ an Acre.

Planted 4½ bushels large size potatoes, worth $1,12½ per bushel, $5,06.

Lot D—¼ an Acre.

Planted 3 bushels large size potatoes, cut in middle, worth $1,12½ per bushel.

They were hoed alike and at same time. Land as near alike as could be on an acre of flat meadow.

The Result.

I commenced digging Lot A, July 8th, and contracted to deliver them at Troy for 75 cents per bushel, to be delivered on the 9th, 13th and 14th of July. The small ones I considered worth for hogs 15 cents per bushel. The potato planted is known here as Early White Junes.

Lot A.

July 8, I dug 31½ bush. marketable potatoes, worth 75c,	$23,62
I dug 6½ bush. small or hog potatoes, worth 15c, - -	98
	$24,60
Worth of seed planted, - - - -	1,25
	$23,35

Lot B.

July 12, I dug 30 bush. marketable potatoes, worth 75c,	$22,50
I dug 9 bushels small or hog potatoes, worth 15c,	1,35
	$23,85
Cost of seed planted, - - - -	4,00
	$19,85

Lot C.

July 13, I dug 21 bush. marketable potatoes, worth 75c,	$15,75
I dug 16¾ bush. small or hog potatoes, worth 15c, -	2,52
	$18,27
Cost of seed planted, - - - -	5,06
	$13,21

Lot D.

July 14, 1 dug 24 bush. marketable potatoes, worth 75c,	$18,00
I dug 14 bush. small or hog potatoes, worth 15c, -	2,10
	$20,10
Cost of seed planted, - - - -	3,38
	$16,72

By the above we see that the small seed gave the most profit. I have tried the three sizes of potatoes, and of different kinds of potatoes, and the result in every case but one was in favor of small potatoes. The above is a small yield of potatoes for the quality of the ground, but still the result is quite satisfactory, as far as different kinds and sizes of seed, and profit of an acre of land in potatoes.

Petersburgh, N. Y., Aug., 1855. W. R. S.

THE BRISTOL COUNTY FAIR.

The Fair continued through Wednesday and Thursday, and during those days was attended by a great concourse of people assembled from every part of the county. Under the superintending care of Hon. J. H. W. Page, the President of the Society (now an ex-President) everything passed off in the happiest manner.

THE VARIOUS EXHIBITIONS.

The exhibition was opened on Wednesday morning. The location of the cattle show was upon the land of M. B. Penniman, a mile to the northward of the town, and although not quite as extensive as we think it might have been, nevertheless embraced some fine cattle, horses, swine and fowls.

The display of fruits and flowers was held in the City Hall, and embraced a large collection of pears and apples that would rank with the finest in the State, and a smaller assortment of beautiful flowers. Among the contributors of fruit, we especially noticed the names of Henry H. Crapo, Wm. P. Jenny of Fairhaven, and D. H. Leonard of Seekonk. Sears Hall, nearly opposite the City Hall, was devoted chiefly to the exhibition of heavy manufactures, and domestic products. In the latter department there were specimens of butter, cheese and bread, that would have done credit to any housewife in the land. There was an old fashioned Indian pudding, and a noble pumpkin pie, representatives of the days of our fathers, both of which commanded the unqualified admiration of the tasting committee, and won prizes for their maker. The show of domestic manufactures, and fancy articles, was very comprehensive, and attracted crowds of visitors. It comprised paintings, embroideries, rugs, carpets and quilts. There were ingenious carvings, utensils manufactured from the teeth of whales, full rigged models of vessels, and a thousand other articles which we have not room to enumerate. The show was very interesting, and was admired by all who visited it. In the Grotto building, there was also a fine display of vegetables.

PLOWING, DRAWING AND SPADING MATCHES.

The plowing match came off at about half-past eleven, on the land of Isaac Chase, Esq., of Belleville, in New Bedford. Several thousand spectators were on the ground. There were fourteen entries for the trial, and the work was performed in excellent style, considering the dry state of the soil. The drawing match, or trial of teams, took place at Hathaway Hill. Fourteen teams took part in the trial, and the result told well for the discipline of the oxen and the efficiency and skill of their drivers. At a spading match on Wednesday noon there were but two entries—both Irishmen, and singularly enough, each of the valiant contestants took a premium—the one of five dollars and the other of three.

THURSDAY'S PROCEEDINGS.

At an informal meeting of the Society held on Thursday morning, it was decided that, as the rain was falling fast, a dinner under the tent, as had been proposed, would be impracticable, and as there was no unoccupied hall in the city of sufficient capacity for the purpose, it was resolved to dispense with a public dinner. This was the more to be regretted, inasmuch as a sumptuous feast for one thousand persons had been prepared by Mr. S. Horton, of New Bedford. Such a failure will probably never occur again, as two spacious halls are now in process of construction in this city.

Address by Professor Huntington. Col. Page resigned his post as President, and made his farewell address to the members of the Society.

For the New England Farmer

PLYMOUTH COUNTY SHOW.

REPORTED BY J. F. C. HYDE.

The annual Fair of the Plymouth Agricultural Society was held at Bridgewater, October 3d and 4th, on the beautiful grounds lately purchased by the Society, embracing about thirty acres of high and low land—hill and plain,—surrounded on three sides by the river, which forms a good boundary. Taken altogether, we think we have never seen so good a place for a cattle show, and cannot but admire the sagacity of those men connected with the Society who first proposed to buy this piece of ground for this purpose. Would that other societies would go and do likewise, that they might have every part of the show on their own grounds, and not put visitors to the trouble of walking miles to witness the various departments. This lot is about half a mile east of the village.

The first day there was a good show of stock in the pens, which was increased the second. There were fine beef cattle, though the show was not large. A number of fine heifers, superior Alderney bull, by E. Hobart, two fine Devon bulls, and good bulls of native stock. There were shown two pens, each containing six milch cows, which were entered for the State premium; one lot by S. Packard, of East Bridgewater, the other by L. Bassett, of Bridgewater. These cows looked very well. There were 12 or 15 yoke of working oxen, and good looking ones too. Of swine there was a small show. About thirty horses and colts were on the ground. Austin J. Roberts, of Lakeville, took the first prize of ten dollars. There were but few fowls, and most of those were Shanghai or some other worthless kind.

At nine o'clock the first day, the plowing match took place on a fine piece of mowing land, where lots of an eighth of an acre had been marked out. Twelve single ox teams entered and plowed with single plows, except one. Seven inches was the depth they were to plow; time, 30 minutes. The work was admirably done, showing that the farmers of Plymouth are not behind their friends of other counties in this important branch of farm work. We think we never saw so many lots in which there was so little difference, and it must have been exceedingly difficult for the judges to determine who was entitled to the prize.

SPADING MATCH,

At 11 A. M., first day—lots, ten feet square.—One Yankee, and three sons of Erin, entered for the prizes. The work was very well done in ten minutes, except by one of the competitors, who took about half an hour, being desirous, as he said, of showing the Committee a new principle in spading.

DRAWING MATCH.

There were several teams entered for the drawing match, but few were able to draw the loads, which were three and five thousand pounds.

The show of manufactured goods, dairy products, vegetables, &c., was held in Wright's large tent, which was erected on the highest part of the grounds. Of manufactured goods, the display was extensive, consisting of elegant furniture, seraphines, a large shoe, six feet long, in which 'tis said a boy had ridden and driven two horses, the usual quantity of bed-quilts, tidies, worsted-work, and a great variety of such fancy articles as the ladies are most interested in, a platform bee-hive, by S. Davis, said to be a perfect protection from the bee moth, "Gale's Eagle Hay Cutter," which worked admirably—a piece of black walnut, sawed out with an upright saw, and very ingeniously and skilfully done.

Of dairy products, we are happy to say there was a good show, there being twenty-one samples of butter, and so good, that it was hard to determine who would have the prizes. Cheese, fifteen samples, which looked well, and we were told by the Committee that they tasted even better than they looked. The farmers of this good old county have no reason to be ashamed of their dairy products. The same Committee received the samples of bread, of which there were eighteen—brown and white—which we know were good, for we tasted of several loaves.

In the vegetable and fruit department, there was a great deficiency, which we hope will be obviated on future occasions. Among other things, we noticed a seedling pear called the "Jackson Seedling," which looked and tasted well, being little if any inferior to the Bartlett, and promises to be an acquisition. A new seedling grape, from Rob't Perkins,—said to be from the Isabella—called the "Perkins Seedling," though not quite as good as the Isabella or Diana, yet we think desirable on account of its early ripening. A sample of cultivated cranberries, of superior size and quality, the largest we ever saw. Baskets of assorted fruit that attracted considerable attention, were contributed by Robert Perkins and Mr. Bryant. Of potatoes there was no lack, and those of large size.

We hope our friends of Plymouth county will excuse us if we say that we hope they will make greater efforts to have this part of their show equal, if not superior, to that of other Societies.

SECOND DAY.

The riding match was the great attraction of the second day, there being on the grounds, within the enclosure, during the trotting, not less than ten thousand persons. There were twelve prizes offered for riding, from twenty down to two dollars. Nine ladies competed and won prizes in the following order:—Mrs. Harriet Holmes, of Bridgewater, first prize, $20; Helen Hobart, Abington, second prize, $18; Miss Bailey, East Bridgewater, third prize, $16; Mrs. Wales, of Abington, fourth prize, $14; Miss Taylor, West Bridgewater, fifth prize, $12; Miss L. Howard, West Bridgewater, sixth prize, $10; Miss Mary Hobart, seventh prize, $8; Miss A. Howard, eighth prize, $6; Miss Yarrington, South Abington, ninth prize, $5. The riding was acknowledged by all to be good, and the ladies appeared to good advantage as they dashed round the track—half a mile in length—leaving, in some cases, the gentlemen far behind. On the whole it was a spirited affair, though perhaps some sensible old farmer might have asked, how does this tend to promote agriculture?

THE DINNER.

The tables were spread in another of Wright's tents, where seats were arranged and plates were laid for about four hundred persons. The dinner was a good one in every respect. After full justice had been done to the eatables, and all were fully satisfied, the president, Mr. HOBART, made a few remarks and welcomed the guests, and spoke of their standing upon their own ground, of the changes of the past year; they were formerly tenants at will, but now the owners of the soil they stood upon; he thanked the ladies for their attendance, said they had not been accustomed to see more than half a dozen present on similar occasions, but was rejoiced to see hundreds instead of dozens. He referred to the past—the first year of the Society's existence, when $120 were given in premiums, while this year over $800 was distributed in the same manner. After other appropriate remarks he introduced the speakers, saying as they had had no address, such as is customary at these gatherings, he should take the liberty to call on several gentlemen that he saw present to speak to them. The first was Rev. Morrill Allen, who was followed by Hon. B. V. French, Hon. Seth Sprague, Hon. Ivers Phillips, Dea. Greele, Hon. R. B. Hall, and others, until the time arrived to announce the award of premiums, which was done at the table; and this closed the day's work and entertainment. We noticed on the grounds a splendid team from the State almshouse, under the direction of L. L. Goodspeed, made up of four yoke of oxen and a horse. The wagon was decorated with a large flag behind, and a beautiful banner in front, on which was painted the State almshouse; the sides of the wagon were hung with monstrous vegetables, which show that, though the farm when purchased was in a poor condition, yet by judicious treatment is made to yield great crops. He told us they would have five thousand bushels of roots this year of all kinds. We think the State very fortunate to get such a man to take charge of these matters, and we hope and believe it will be long before they will wish to part with him.

And in closing, we cannot help speaking a good word for the people of Plymouth county, and Bridgewater in particular; they know how to treat strangers well, and we should be glad to call names and return thanks to the persons, had we not been forbidden to do so. We hope they may live long and live happy.

WOLF ON THE JAW.

MR. EDITOR:—Will you or some of your correspondents acquainted with veterinary science, inform me of the cause of hard bunches on cattle's jaws, called wolfs? or if there is any cure for the same?

A SUBSCRIBER.

NOTE.—"Wolf" on the jaw is what the Doctors call necrosis of the bone. Sometimes it is caused by a blow upon the jaw, sometimes by an ulceration of the roots of one of the teeth. We have known two cases cured by pulling out one or two teeth where affected, but this does not always succeed. As a general thing, it is best to fatten and kill the animal, as it would involve too much expense to attempt a cure by operation for necrosis.—*Maine Farmer.*

☞ The receipts of the New York State Fair at Elmira were nearly $12,000—larger than ever before. Gov. Wright of Indiana delivered an excellent address, beginning "All flesh is grass."

For the New England Farmer.

FEEDING AND TENDING HORSES.

Mr. Editor :—In answer to the two several communications in your paper of the 8th, respecting horses, I will state a few general facts as succinctly as possible.

1st. As regards the cost of keeping a horse; no definite sum can be given—some horses requiring double the feed that others do to keep in same condition—work equal. A horse in good health, not over-worked, will consume say from 100 to 150 pounds of hay per week, and from 6 to 12 quarts of grain daily. As a general thing, horses, especially in cities, have too little hay and too much grain, while those in the country have too much hay and not enough grain, and that served irregularly, that is, when not worked, or but very little, no grain is given, only hay, and when worked much, grain. A horse should have a certain amount of grain every day, say when worked a full feed of corn meal or oats with hay, but when idle or work very light, some two quarts (not more) of oats at a feed three times a day. I would remark, however, that a horse should be exercised every day if possible, and if the weather be inclement, well hand-rubbed on his return. Make but as little use of that barbarous instrument, the curry-comb, on the horse's hide as possible (especially if he be a thin-skinned animal,) but use the brush and rub with straw, sackcloth, or some other coarse material as much as you please. Do not have the least fear of over grooming.

A little fine salt, say from one to two ounces, given to a horse daily in his grain, will be found of great benefit, allaying any internal inflammation (to which the horse more than any other animal is subject,) keeping the coat glossy, free from dandruff, appetizing, &c., &c. Cut feed, (i. e. cut hay and corn meal) once a day in the morning, and "long" hay and oats at noon and night, is a very good way of feeding a horse accustomed to the general run of work. This may be varied two or three times a week by adding some two or three quarts of bran to the cut feed. But if meal be the only grain given, scald it well, and this, with the addition of a little table salt, will be found much preferable to meal not swollen, more fattening, easier digested, &c. Of course it must be cold before given to the horse. Cut feed is very good for horses accustomed to very hard labor which have but little time to stand at their food during the day, as they can consume a greater amount in a less time, and the hay being cut does not require so much mastication as uncut, and a horse with a sharp appetite will eat his grain voraciously, swallowing a large proportion of it whole, and which does the animal but little good, passing through the system entire. Cut-feed is also good for horses which are large feeders but do not retain their food, evacuate frequently and excessively.

For a horse used only on the road, I would ignore meal altogether especially in warm weather, and feed only on uncut hay and oats enough to keep the animal in good working order. The Texan and Mexican horses perform long journeys with great ease and their only feed is grass, hay or straw—no grain. They are not beauties to look at, it is true, but for bottom our best Northern horses must stand one side. Old horses, it may be remarked, will consume less than young ones.

2nd. As regards that most important point, shoeing; ten dollars used to be the price charged by smiths for shoeing by the year. But I think it the better way to pay as you go, employing only a first-rate workman, who will fit the shoe to the foot, not the foot to the shoe—if there is any thing I would protest against with all my power, it is that barbarous custom of applying a red-hot shoe to a horse's foot, burning it into the horn, &c. No good can result from such a practice, notwithstanding all the smithy arguments to the contrary. The most superficial observer will see on a moment's reflection, the fallacy of such a lazy proceeding. Horses intended for road service only, need no caulking except in freezing weather, and if they overreach or interfere, the shoes can be adapted so as to almost entirely do away with these troubles.

Wash your horse's feet once every day if possible, (but not his legs) to promote a healthy growth of horn, &c. If salt water be used some two or three times a week, I will guarantee your horse will not be troubled with thrush or other foul disorders of the hoof.

In answer to "Inquirer," I would say that a colt the offspring of the animals mentioned, would be likely to be a good work horse, but not a traveller. I would advise any one in search of a horse especially for the saddle, to buy one "already made." I once knew a resident of a suburban town who was determined, as he expressed it, "to have a horse no one had ever held a rein over." He had a very fine old mare from which he obtained a most promising colt; but alas, after keeping the animal some two years, a cow in the same pasture hooked the poor colt's eye out, and my friend never attempted to raise a horse, but was content to have one some one else "had held a rein over." If "Inquirer" is determined to raise a horse, however, if it should not prove good, he could sell and buy to his mind.

A horse for the saddle should be used for nothing else, (not in a vehicle part of the day, and saddle part,) but kept exclusively at one service. He should be taken young, say from four to six years old, should be a square trotter, hard mouthed, short back, round barrel, and weigh some 900 lbs. when in good flesh. Should be urged with the spur, (as sparingly as possible, however,) not the whip, as the latter article of torture they are constantly watching, and hence are more liable to stumble, &c. A horse used every day, or as often as practicable, under the saddle, by one person only, will soon get accustomed to his rider, his motions, &c. No exercise is more enjoyable, none more healthful, than when taken on the back of an animal used to the saddle. The rider should not wear too long a stirrup, but support himself in part by his feet, adapting his motion as much as possible to that of the horse. All the training a horse needs for the saddle is to have an intelligent rider, who will conform to his motions, which the animal will reciprocate, if he be anything of a decent beast.

Use a snaffle bit, (i. e. one jointed in the middle,) only, and when the horse is not walking, always keep a taut rein. Horses are or always should be bitted when broken, but it has but little effect when the animal's habits have become confirmed.

The only way we know of to make a long-gaited horse step short is to use him constantly in some heavy vehicle, say an omnibus or stage, but we fear no permanent change can be produced. A horse will travel in a way the most natural and the easiest to himself. Man may force him to carry his head high, step short, &c., but if he be inclined to carry a low head, step long, &c., nature will assert her supremacy after a while; besides, a forced carriage or unnatural gait will worry the animal and produce bad results.

Shakspeare in "Venus and Adonis" draws a model horse:

> "Round-hoofed, short-jointed, fetlocks shag and long,
> Broad breast, full eye, small head and nostrils wide,
> High crest, short ears, straight legs and passing strong,
> Thin mane, thick tail, broad buttock, tender hide," &c.

One word more. We do not pretend to say that what we have written, in regard to feeding a horse especially, should be strictly followed. What may be good for one may be bad for another. The owner must have an eye to his horse, and if he thrives best on corn, give him corn,—if on oats, feed with oats. Some horses do best at heavy work, some at light. Had I space, I could cite a thousand instances—I will name one or two only; a gentleman had a fine horse which he used in a chaise—work light—feed high—careful driving—still the horse grew poor; he was sold to a butcher who drove the horse every day in his not by any means light cart—the animal soon began to improve, and looked, before long, as fat and sleek as a seal; the work agreed with him. I know another instance of a chaise horse which was sold on account of his poor looks to a negro drayman. I saw the horse after the drayman had had him some five or six months; he was as fat as could be. Inquiring the cause of his improved looks, the negro told me that he had fed the horse since he owned him on good hay, swill and one quart of whole corn per day—no more—groomed him well, worked hard but slow.

I might extend this article if I thought it would be acceptable. The subject is a prolific one. If you would like to hear more from me, please signify.

S. W. C.

THE STUFF THAT CLOVER IS MADE OF.

The clover plant, when properly cultivated and properly used, may be made one of the most valuable aids to the farmers of Maine that they have.

It is good for feeding animals, and it is good for feeding the soil. This makes it very valuable. Let us see what stuff it is made of. Various analyses have been made by different chemists, and the general results are very much the same. The variations are such as might be expected from the different circumstances of growth, &c.

The most recent analysis, we believe, is that of Professor Horsford. After burning the plant to ashes, he found that one hundred parts of these ashes contained almost twenty-three parts of carbonic acid, and little more than one part of coal and sand.

He then examined what was left, after deducting out the carbonic acid, and the coal and sand. He found that 100 parts of this last contained 16 parts 1 thousandth of another part of potash—that is, a hundred pounds would give you over 16 pounds of potash,—soda, over 40 pounds,—magnesia, over 8 pounds,—chlorine, 2 pounds,—phosphoric acid, nearly 4 pounds,—sulphuric acid, over 1 pound, silica (flint) 2 pounds.

We have stated these things in the rough, and you must remember that it is one hundred pounds of the ashes, and not of the clover itself. It takes 100 pounds of the clover itself to make 11 pounds of ashes, or eleven hundred pounds of the clover to make one hundred pounds of ashes. According to this, the above amount of articles are to be found in eleven hundred pounds, or a little more than half a ton of clover hay.

From this it would seem that ashes which contain potash—plaster which contains lime and sulphuric acid,—and salt which contains soda and chlorine, would make good fertilizers for clover, and experience proves that they are. These are the mineral ingredients, but clover also contains gum and sugar, which may be resolved by analysis into carbonic acid, oxygen and hydrogen, much of which it obtains from the atmosphere.

In plowing under clover we return to the soil a substance or dressing which has collected and packed away in its systems or organs, a large proportion of the ingredients above named, and which, when the clover decomposes, gives them forth in a soluble form for the use of such crops as may be planted in its place and may need them.

The wheat crop requires most of the same ingredients, though in different proportions. The corn crop (Maize) requires a large proportion of potash, and would be benefited by such a dressing. Hence, clover which by its broad system of leaves, can obtain from the atmosphere many of the gaseous materials necessary for its formation, and by its deep and strong spreading roots can gather from the soil mineral matters, changing and elaborating them into different combinations, is well fitted to be an agent in a system of rotation, and becomes an improver when properly used for that purpose, either when fed to cattle and then manure used therefor, or when plowed under as a green crop.—*Maine Farmer.*

Reading in the Cars.—Thousands are probably to-day suffering from this evil without mistrusting the cause. If we rightly consider the ever tremulous motion to which our bodies are subjected in the movement of the cars, we can hardly wonder that the delicate organism of the eye should be injured by incessantly striving to trace the outlines of the minute elements of a newspaper, novelette, or badly written sermon. If the sun was always in a similar tremor, even the keen eye of the eagle would soon tire of looking it in the face, or lose its sight. While so much landscape beauty lies outstretched from the car windows, and so much kind, social chit-chat may be enjoyed within, it seems hardly worth while to waste so valuable a piece of personal property, as the eyesight, for the sake of forestalling a little morning or evening news, sustaining unapproachable dignity, or being thought very studious or literary.—*Andover Advertiser.*

Poll Evil in Horses.—For the benefit of those who have or may hereafter have horses that have poll evil or fistula, I would say, don't sell the animal for a trifle, or give him away; but cure him sound and well. I care not how long it has been running, it can be cured with one dime; yes, one dime's worth of Muriatic Acid will cure the worst case of old poll evil. First, wash the sore well with strong soap suds, then drop eight or ten drops of the acid in it twice a day, until it has the appearance of a fresh wound; after which, it should be washed clean with suds made from Castile soap, and left to heal, which it will quickly do if the acid has been used long enough; but if it does not get well, apply the acid again until it does cure, for it is a sure remedy, and will not fail if it is applied until the diseased flesh is all burnt out.—*Prairie Farmer.*

SAVE YOUR BEST SEEDS.

Now is the time to be careful and save your earliest and best seeds. Most people are negligent or dilatory in regard to this matter, and they are forced to send to seed stores at planting time to find something that will answer for seed. But how often are they disappointed!

Save the earliest and best seeds. Much depends on this. Our summers are not always long enough and hot enough for the ripening of that invaluable crop, Indian corn. We should therefore select the earliest ears, and these are found *in the field,* where not half the ears have yet matured.

By selecting the earliest from year to year we gain a number of days, and when we already have a favorite kind of corn, this is better than to send annually to the North to procure earlier kinds, for such are usually much smaller than that from which we harvest our earliest crops.

Pluck the best ears while the corn is standing, and as soon as they have turned hard, draw down the husks and make a braid of them. Then string up a dozen together in your corn-barn, and you will not need to run to Boston or to a neighbor for seed.

White beans have now become an important article in the market. We have not yet learned that rot or disease has attacked them, and yet their price in the market this season has exceeded four dollars a bushel, four times as much as they were sold for a few years ago. It is quite important to procure early kinds of white beans, as thousands of bushels are lost by the frosts of September.

Peas also should be saved now and labelled, as it is a long time to April, and you may forget the kinds unless you mark them. The cost of a box with several apartments is not great, and the time saved is important, in addition to the confidence of having good seed.

Carrots, parsnips and turnips, often fail for the want of good seed. Yet any farmer may as cheaply raise a supply for himself as to run to seed stores in the spring and buy he knows not what. It is rather surprising to see how many farmers resort to the city to buy seeds, when they can so easily save enough from their own gardens.

In the rearing of apple and pear stocks it is important to sow good seeds only, or to use no seedlings to place in the nursery rows except those of the first growth, for those that start up in the seed-bed the second year come from poor and blasted seeds, and never make vigorous stocks.

This is the reason why we are so often cheated when we buy seedlings out of seed beds where pomace has been sown to rear them. It is a better mode to sow only the full seeds instead of sowing pomace, in which there will be as many blasted as good seeds. Pomace may be put in a large tub of water and beat up so as to let the best seeds fall to the bottom. These seeds must then be placed in loam to keep them moist enough for vegetation. They must be sown in the fall, in October, as well as in the spring.—*Ploughman.*

NOTHING LOST.

Aside from its excellent moral, is not the following very musical and beautiful?

Nothing is lost: the drop of dew
Which trembles on the leaf or flower,
Is but exhaled to fall anew
In summer's thunder shower;
Perchance to sparkle in the flow
Of fountains far away.

Nothing is lost—the tiniest seed
By wild birds-borne or breezes blown,
Finds something suited to its need,
Wherein 'tis sown and grown.
The language of some household song,
The perfume of some cherished flower,
Though gone from outward sense, belong
To Memory's after-hour.

So with our words: or harsh or kind,
Uttered, they are not all forgot;
They have their influence on the mind,
Pass on—but perish not.
So with our deeds: for good or ill,
They have their power scarce understood;
Then let us use our better will,
To make them rife with good!

For the New England Farmer.

SAVING SEED CORN—STOOKING CORN.

Dear Farmer:—As this is the season for harvesting corn, and I have a few leisure moments to spare, I will give you my views upon this subject.

1st. In selecting seed for next year's planting, there are some facts, which, perhaps, are not generally known, or at least thought of. It is a law of nature that *like* begets *like* in all the vegetable kingdom. This being a fact, I base my remarks upon it. Wherever you find a stock of corn that has *two* ears on it, there you will find that the top ear is from four to eight days earlier than the second, or bottom ear; there being this difference in the setting of the ears. *Now* is the time to select the seed, and let every *farmer* who reads this, go through his fields of corn, and select one ear from stalks that have two ears on them, always selecting the *top* ear, providing it is a sound one, and well filled out. By going through the field before the corn is fully ripe, the farmer can easily select ears that are from eight to ten days earlier than the bulk of the field.

Acting upon the fact that like begets like, the farmer not only gets seed that will in two or three years, produce stalks that will grow *two* good *sound* ears, but he will advance his crop some ten days; and in this climate, where we have frosts sometimes in August and the first of September, it is of vast importance to the farmer to be able to advance his crop ten days, thereby securing a sound crop. These facts are self-evident; they need no labored argument to make them plain, for they are perfectly reliable, and cannot be denied. There is quite a difference in opinion among good farmers even, in regard to harvesting the corn crop. Some contend that it is the best way to "top stalk" it, and when the corn is sufficiently hard, to pick it. Others contend that you will have more corn to "cut it up," and stook it.

In this town, (Northfield, Mass.,) both ways have been thoroughly tested, and the prevailing opinion now is, that cut up corn is not only the *safest,* but, that the yield is from five to ten bushels per acre more than when the stalks are cut.

I have noticed that many farmers, when they wish to sow rye after corn, will cut up the corn and stook it upon grass ground. This is wrong, wholly wrong; and those who practice it are sure to have a much larger quantity of *soft corn*, than those who dry off their corn on ploughed ground. Where there is so much green vegetation and moisture under and around the stooks, it never dries off properly. These are facts, and if these few lines shall induce even one man to follow them out, I shall be amply paid for writing them.

Yours truly, H. STRATTON.

Northfield Farm, Sept. 15th, 1855.

For the New England Farmer.

WHEAT—HIGH PRICES.

MR. EDITOR:—Your issue of this morning touches upon the high prices of flour and grain, by a correspondent, "N. Q. T." In the main, I perfectly agree with him; but how far such complaints are justifiable, I propose to look at, and also to propose a remedy in part, which lies in the hands of New England farmers.

In the first place, Europe is at this moment making a heavy demand upon us for flour. With no old stock and a short crop, they are knocking at the door of our granary, and will continue to do so till the end of the war.

Russia has ever been a large exporter, and our principal competitor in the markets of Europe. It is not so now. She is at war, with every port embargoed, and her tens of thousands of farmers are bearing arms for their country, eating up her crops and producing nothing. Should France, England, and other parts of Europe call for bread (as they are calling) to what country can they flee but to the United States?

This is the primary cause for the now high price of flour. The farmers of the West are posted in all these matters, and like the farmers of the east, when the demand for hay or apples is great, they make prices to conform. Speculators are not swift enough in the race—the benefit enures to the farmer, he not being forced to sell. Unexpectedly to all, our "overwhelming crop" will be disposed of at high prices.*

Now, does all this open a book of lessons for your New England farmers? Lands they have in abundance, but their wheat grows in Wisconsin rye, oats and barley are every farmer's *home crop*; but within the past four years he has eaten bread from cargoes of wheat imported from the Mediterranean. Should this be so? Perhaps that year of scarcity in the West, would have proved one of abundance in the East. But a doubting mind never makes progress. If we never sow, how can we expect to reap?

Ninety-four bushels of winter wheat were raised on less than two acres of land on Milton Hill (near Boston,) by S. F., Jr., Esq.; yet the farmers ridiculed the idea of his trying to raise wheat. Providence has furnished you with spring and fall grains, but the agricultural conclusion is that the "soil has lost its lime," and it wont grow. Late as it is, if I were a farmer, I would put down some wheat, and *try a remedy for high prices.* H. POOR.

New York, Sept. 22.

For the New England Farmer.

APPLE TREE WORMS.

In the *Farmer* of week before last a correspondent asks, "What ails the Apple Trees?" and then describes just such an affliction or disease as has attacked my trees. He says that in his examinations he found but one worm; and by his remarks I conclude he suspects the trouble to be the effect rather of the wash he had used, than of the worm. But as I find plenty of worms, and as my trees have not been washed at all during the two past years, I cannot agree with him in that conclusion. I find on my trees spots of dead and sunken bark, from the size of a button to that of half the diameter of the tree in width and a foot in length. The worms are in and under the live bark. The largest are about one-third of an inch in length, and of a reddish-white color, but many are much smaller.

Mr. Horatio Symms, of this town, a man of much experience and observation in matters pertaining to fruit, tells me that these worms are what the woodpeckers were after when they bored those little holes into the bark, which used to be considered as conclusive evidence that the peckers were destroying the orchards. Now that we have driven off or destroyed these birds, he says we must cut out the worms with a knife, or they will kill the trees. They have made bad work on several of my trees, especially where they have found a lodgement at the fork of the branches,—almost entirely girdling them in some cases. It mutilates the tree sadly to cut out the worms; is there no other way of preventing their ravages? Would that we could call back the woodpeckers! S. F.

Winchester, Sept. 24, 1855.

For the New England Farmer.

HARVESTING CORN.

I perceive, Mr. Editor, that Mr. J. Underwood, of Lexington, does not agree with my suggestions, as to the best mode of harvesting the corn crop. It is a subject upon which I could hardly expect an identity of opinion, for there certainly is a wide difference in practice. I was, myself, schooled in the somewhat "old fogie" practice of cutting off the stalks of corn, one by one, in order to save them for fodder, and to give the ears a fair chance of ripening in the sun. But I found that this practice involved a degree of labor greatly beyond that of harvesting the entire crop by cutting it up with a sickle. I was therefore led, somewhat reluctantly—for I had imbibed similar views to those expressed by Mr. Underwood, to try the experiment of cutting up the crop, after the corn was out of the milk, and the leaves had partially turned, binding it in bundles, and "stooking" it up to cure. At first, I tried about half an acre, alongside of an equal quantity harvested in the old way of cutting the stalks. There was no perceptible difference in the appearance of the corn thus harvested, after husking it, or after it was ground into meal. Both sorts made equally good bread, and there was no evidence of a difference in the quantity of nutritive matter. The "stover" from that portion cut up with a sickle greatly exceeded in quantity that where the stalks only were cut above the ear. The labor of harvesting was at least twice as great in the latter case as in the former. I have tried the experiment repeatedly since, and I have found no reason to change the views forced upon me by the first experiment.

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*Six thousand barrels of flour are daily consumed in this city, quite an item in the national bread-basket.

I beg to assure Mr. Underwood that I have several times harvested my "pop corn" in the same way and have found no difficulty in making it "pop." I have some ears plucked and dried before they were fairly out of the milk. The kernels are somewhat smaller, but I fancy, that, when the popping time comes, Mr. Underwood will be able to hear the report thereof, if he keeps an open ear towards *Somerville.* E. C. P.

For the New England Farmer.

LITTLE THINGS:

OR, A WALK IN MY GARDEN.....NO. 4.

Walking in my garden is almost a passion with me. If I want to digest my dinner in a quiet way, a walk and a survey of what is growing in the garden, I find to be much better than a nap. Besides, it is an excellent place for meditation. To-day I was looking at some

CABBAGES,

which I set out in the spring for greens and for seed. I have, for several years past, had the curiosity to raise some heads from the stumps, simply by pulling off all the shorts, save one or two, and they will head out without any trouble, and earlier than from the seed. I think that next spring I shall take the stumps of the Early York cabbage, set them in a soil well manured with old compost, and have cabbages earlier than the doctor, or anybody else. Another thing I have done. I commence in August to pull off an armful of the outer leaves every day, and give them to the pigs, which eat them greedily; and I never could perceive that it prevented the cabbages in the least from heading.

But I want to tell you what I do with my

PLUM TREES.

Instead of budding, in which I have not been very successful, I graft up every shoot, which should be done near the ground, though I do not always practise it, and as early in spring as possible. Stocks of the common damson and Canada plum are good for this purpose. I find they usually commence bearing the third year. One stock has made a growth of nearly six feet the present year. Almost wherever I go, I see plum trees raised from suckers of the common damson, which never bore, and never will, that might be easily grafted with improved kinds, and immediately brought into bearing.—There is in this village a large tree of the Canada plum, whose top seemed too old to graft; and yet it was grafted, a few years since, and has the present year a heavy burden of the Washington plum. Such a crop of plums I have never before seen on one tree. I noticed that the curculio did not touch my McLaughlin plums at all, this year. But I want to ask a word about my

ASPARAGUS.

Is it any injury to keep the stocks cut during the season, so that it shall not go to seed? I have given about twenty crops of it to the pigs, this season, and they love it as well as I do; but does it not have the tendency to throw out many small shoots, at the expense of larger ones? A word more about the

BARBERRY.

Several persons in this vicinity have cultivated clumps of this shrub, but it never fruits. What is the reason? Is the ground too rich?

Bethel, Me., Sept. 20, 1855. N. T. T.

MIDDLESEX SOUTH AGRICULTURAL SOCIETY.

The Annual Fair of this Society commenced on Wednesday, Sept. 19th, at Framingham Centre. The first day was devoted entirely to business, the arranging of stock, and to examinations by the judges. The weather was as agreeable as could be imagined. The rain of the preceding day had laid the dust, washed the grass and leaves, and imparted to the air a delicious freshness and elasticity which seemed to animate all. So men, matrons and maidens thronged to the delightful scene from every possible avenue—from over the roads, through the green lanes, down the pleasant slopes and along the grassy valleys of this beautiful town of Framingham.

This was the second Show of this young and vigorous Society, and was successful, we believe, in every department. There are few towns in the Commonwealth affording so many facilities for improved husbandry, and containing so many individuals possessing a taste for it, and the means of gratifying it. Mr. BUCKMINSTER, the editor of the *Massachusetts Ploughman*, has long resided there, and has given an impulse to the region around in his numerous good examples in almost every department of the farm. Major Wheeler has also done much in his practice as well as precepts for thorough cultivation, and towards ornamenting the town with fruit and shade trees. Messrs. H. G. and A. S. Lewis are both doing a good work, particularly in stock. Messrs. J. S. Wheeler, Abner Haven, James W. Clark, J. W. Brown, and others in the town, are actively engaged in promoting the noble art. Below we give a more particular account from the *Boston Journal*.

EXHIBITION OF STOCK.

The stock was arranged in some one hundred and twenty-five pens. The show of neat stock was large and of fine quality. We noticed in one pen a Devon cow and heifer belonging to J. Burnett, Esq., Southboro', which, if as good at the pail as in appearance, must indeed be valuable stock.

Mr. Buckminster, of the *Ploughman*, had twenty-nine head of stock of various ages in one pen, nearly all of which was Devon blood, bred from a bull owned by him for several years. Some of the cows and heifers were very symmetrical and beautiful in form and color. Mr. Buckminster has given much attention to Devon stock, and is laboring with much assiduity to introduce it in New England, as well suited to the climate and soil.

We noticed one "full blood Jersey cow," "Snowdrop," owned by J. Burnett, Southboro', also a Jersey heifer and calf in the same pen, all of which are fine animals. A fine Durham cow owned by Abraham S. Taber, Holliston, attracted much attention for her fair proportions. Some good native cows were to be seen; we noticed one belonging to Obed Winter, Framingham, which though small, had all the marks of being a superior cow.

A large quantity of calves and heifers were in the pens, also several bulls. One belonging to W. G.

Lewis, Framingham, of the Alderney blood, is a superior animal. A full blood Devon, owned by J. Burnett, Southboro', attracted much attention. A Jersey bull, full blood, in the same pen, and owned by the same individual, is a fine animal. There were many other bulls within the pens, but our limits forbid a further notice.

The show of working oxen was also good, some forty or fifty yoke being on the ground.

The exhibition of horses was confined almost wholly to breeding horses and colts. We noticed many good animals, but none worthy of particular note.

We saw but two pens of sheep, and those not remarkable for fineness of wool or as inviting to the butcher.

The swine department was well represented, fifteen pens being set apart for the porcine stock. The Suffolk breed had more representatives upon the ground than any other, and some of them, from their fine size and good proportions and cleanly appearance, must have disarmed a Jew even of his prejudice against an animal not eatable according to the laws of his fathers.

The poultry department was also well represented. We noticed some twenty-five coops of chickens, ducks, geese and turkeys.

EXHIBITION IN THE TENT.

The display in the tent was very fine. The bread and butter department was excellent. We noticed twelve samples of butter, besides bread sufficient in quantity to supply the wants of a large portion of the hungry crowd. In connection also we noticed a quantity of pickles, preserves and honey.

The display of vegetables from the kitchen garden was equal, if not superior, to that in the Horticultural Exhibition at the Music Hall, Boston, and the fruit department would also bear a fair comparison. It was in every respect a most excellent display. Time and space would fail us to note the many fine squashes, pumpkins, varieties of potatoes, cabbages, and other vegetables, and the pears, apples, peaches, plums, grapes and cranberries upon the tables. Pomona has many admirers in the South Middlesex Society, and they all come full handed to spread out specimens of her bounty, to the admiring gaze of the thousands who congregated at the Fair.

The exhibition in the miscellaneous department was not very large. We noticed a variety of stoves, washing machines, and other articles, which we cannot notice in detail.

NEEDLE WORK AND FANCY ARTICLES.

One long table, extending the entire width of the tent, was devoted to this department. We noticed a large quantity of hosiery, crochet work, counterpanes, wrought ottoman covers, slippers, artificial flowers and paintings.

PLOWING MATCH.

The first business of the day was to attend to the plowing match, which was held on a field belonging to W. G. Lewis, Esq., on the "Lawn Farm"—truly a beautiful farm, situated half a mile west of the depot. The stars and stripes floated gracefully in the morning breeze above the ground lotted off for the plowing. The soil was a sandy loam, free from stones, with considerable sward. Six single ox teams, besides several double ox teams, contested for the prizes. The teams performed their work in a very satisfactory manner.

After the plowing match, the working oxen were exercised upon a heavily loaded cart.

THE BANQUET.

At one o'clock six hundred ladies and gentlemen sat down to a splendid banquet, prepared by the well known caterer, J. B. Smith. It was served in one-half of the spacious pavilion, which had been divided for that purpose. After the company was seated, the divine blessing was invoked by Rev. Mr. Childs, after which, the company regaled themselves upon the bountiful repast. After the eatables were disposed of, Professor Huntington, of Harvard University, was introduced as the orator of the day, and announced as his subject, "The Culture of the Cultivator, or Human Husbandry." To get the right kind of farming, he said, we must get the right kind of a farmer.

With this for a topic, the orator, in an eloquent manner, proceeded to portray the course of education necessary to make a good farmer; that it was necessary to enthrone the mind over matter. We have no room to give even an abstract of the orator's remarks. They were listened to with profound attention, interrupted occasionally by applause.

The President, Mr. Buckminster, then addressed the Society briefly.

Hon. Simon Brown, Lieut. Governor, C. L. Flint, Esq., Secretary of the Board of Agriculture, Col. Newell, of the Board of Agriculture, Mr. Greely, of Boston, and Mr. Dodge, of Sutton, were severally introduced by C. R. Train, the Marshal of the day, each of whom made brief speeches, much to the satisfaction of the audience.

Dr. Hobart, of Southboro', then made a brief and humorous extemporaneous report upon swine, which brought forth rounds of applause from the audience. The company dispersed after the prizes had been announced.

The attendance of people, notwithstanding the attractions at Worcester, was very large, and the fair was in all respects highly successful.

How to Cut Hedges.—Almost all the thorn hedges one sees clipped square, *i. e.*, the top is made flat and the sides perpendicular, the object apparently being to make them as like a wall as possible. An observation I heard made lately seems to have a great deal of truth in it, viz., that this system has a great tendency to make the hedge grow thin below, and that it is a much better way to keep it widest at the base and let it gradually taper to a point at the top. I have certainly seen hedges managed in this way present a beautiful close surface, which I attribute to the plan of allowing a much greater number of shoots to reach the outside. Hedges kept square are very apt, when old, to get "blanky," and grow bare near the ground, even though the top may be quite thick and flourishing. In this case there is no remedy but cutting down, always a disagreeable necessity, for then all shelter is gone at once, whereas this would very seldom be necessary if the hedge was kept in a pyramidal shape, for then there would always be plenty of shoots close to the ground equally young and growing as those at the top.—*A Northern.* [This is excellent advice, but we are concerned to hear that our north-country friends stand in need of it.—*Eng. Paper.*

For the New England Farmer

FITCHBURG AGRICULTURAL EXHIBITION.

Mr. Editor:—This is the season of conventions. All the world is attending conventions, agricultural, political, women's rights, or some other. Moved by the conventional impulse that is moving all the world, I got into the cars about half-past eight, Wednesday morning, and soon after ten found myself at the beautiful and thriving town of Fitchburg. I found the President of the Middlesex Agricultural Society, and other gentlemen, going to the North Worcester Cattle Show. On our way up the road we picked up several other gentlemen bound to the same gathering. On our arrival, we were cordially received by Gen. Wood, the President of the Society, who took care that the wants of our outward man were well supplied, and by his polite attentions contributed much to the pleasure we enjoyed on the occasion.

The Plowing Match had commenced when I arrived, and I did not witness this part of the exhibition. But I understand that it went off well, and exhibited a good degree of skill and interest, and that many fine teams were present on the occasion. The drawing of oxen was the next thing in order. Several well-trained teams were exhibited in this part of the performance, and did credit to the skill of their drivers. I next took a stroll among the cattle pens. There were many fine native cows and young cattle on exhibition. There were but few of foreign or mixed blood—showing less effort in that direction for the improvement of stock than I expected to see among the enterprising farmers of North Worcester. There was a fine pair of Durham steers, 5 years old, of large size and fine proportions, that attracted much attention, and a few good animals of mixed blood. I would not say a word in disparagement of our native stock. The selection and care of this, must after all, constitute the basis of all improvement in stock. But where an earnest interest has been awakened on the subject of stock, I should expect to see a greater number of animals of foreign blood, and more experiments in adapting them to our own climate and wants. The show of swine was small, but embraced some fine animals. Several fine horses and colts were on exhibition, indicating an increase in interest in this department.

I next visited the Hall, which is a beautiful building, and on the present occasion, presented abundant evidence of the taste and skill and success of the members of the Society, in the cultivation of fruits and vegetables. The heaps of monster squashes and big golden pumpkins afforded an intimation that the good wives among the hills of North Worcester know how to appreciate good pies, and that Thanksgiving day, when it comes, will not be wanting in this evidence, at least, of thankful hearts. The exhibition of agricultural and mechanical implements and of needlework was highly creditable. But the exhibition of fruits in the upper hall struck us as the great feature of the occasion. The show of apples, pears and plums called for the unqualified admiration of all spectators. There were several dishes of fine peaches, which, for this season, far exceeded our expectation. The number and variety of pears afforded proof of an increased interest in the cultivation of this delicious fruit. Apples of fair proportions and of almost unlimited varieties were piled upon the long tables, and made a most magnificent show. What a contrast between this show of apples, and those with which you and I were familiar, Mr. Editor, when we were boys! In what department of agriculture has there been a greater advance than in the cultivation of fruit? And yet the march of improvement has obviously but just begun.

From the Exhibition Hall we went to the large Unitarian Church, where we listened to some fine music from the choir, to a prayer by the Rev. Elnathan Davis, and to an eloquent address from N. P. Banks, Esq. I have not space to give you an epitome of the address. Suffice it to say, it was just what might have been expected from Mr. Banks.

We next went to the Dining Hall of the Fitchburg Hotel, escorted by the band. The dinner was fine, and everything passed off in good shape. Addresses were made by his Excellency, Gov. Gardner, Hon. N. P. Banks, Gen. Chandler, Col. De Witt, Col. Brewster, Hon. G. Lyman and others, in response to toasts which were happily introduced by G. Downs, Esq. The day was fine. The rain of Monday afternoon had laid the dust and washed the foliage, and the clear bracing air contrasted gloriously with the sultry, dusty atmosphere which we had been breathing for a week previous, and added greatly to the pleasure of the occasion.

Yours truly, J. R.

Concord, Sept. 21.

CLEANING AND PLANTING APPLE SEED.

Messrs. Editors:—If you will inform me through the *Co. Gent.* how to free apple seed from the pomace you will confer a favor.

Please state the proper method of applying guano to seed-bed and nursery ground, and how rich the soil will need to be, to obtain the *greatest* growth in each case. The soil is a strong clayey loam, with considerable sand and muck. It is naturally quite wet. J. L.

Mix the pomace with water and stir it, and the seed will fall to the bottom—rack off the pomace and water, and repeat the operation till clean seeds are left. The best way is to have two large boxes, one within the other, the inner one with the sieve nailed on the bottom, coarse enough to let the seeds drop through, and standing above the bottom of the other on blocks. Put the pomace into the inner box, and pour water into the outer; the water finds its way among the pomace, which being stirred, allows the seed to drop through into the clear water below. By this means, seed can be cleansed much faster than by the first mentioned process.

Guano is best applied by first making it into a compost with many times its bulk of loam, turf, peat, &c., or either of them—and then applying, like any other manure—making the soil *deep*, and it must have a dry subsoil. Apple seedlings, to grow vigorously, should have a soil as rich as the *richest garden soil*, such as we use for the most luxuriantly growing vegetables.—*Country Gent.*

How to Plow under Tall Weeds.—Where weeds have not been kept down by other crops, or by close pasturing, they have, as might be expected, made a most luxuriant growth; and as many such fields will have to be plowed for wheat, and other fall crops, it becomes a matter of much importance to know how we can best turn them under with the plow, so as to be completely out of the way of the harrow and drill. An excellent way to do this, is to fasten one end of a heavy log-chain to the end of the doubletree to which the furrow, or off horse is attached, bringing the other under the beam of the plow, just before the sheath, and confining it there. The chain should lag enough to touch the ground, or nearly so. A little practice will teach how tight it should be. By this plan the weeds are drawn into the furrow and completely covered by the furrow-slice falling on them while there. Will somebody tell us of a better way?

For the New England Farmer.

ABOUT HEDGES.

Mr. Editor:—As you always seem willing to answer questions propounded by correspondents, I presume so far as to inquire something about hedges, which if you will please answer in the *Farmer*, I think will not only enlighten the writer, but many others that wish to grow fine hedges.

I set out, last spring, one thousand Osage Orange. The plants were twelve inches high, and I cut them down to three inches. During the summer, they have made from twenty-five to thirty inches, new wood. When should they be again cut down, and how low?

I have some thrifty Honey Locust, (Acacia,) Privet and English Thorn hedges, of two years standing. They were cropped twice last season—then again cut down within eighteen inches, and sides trimmed in last June. Do you advise to trim in again this fall?

When is the proper time to cut in Arbor Vitæ hedges—say a hedge that has made a large growth the present season, and is now thirty to thirty-six inches high? A. R.

Lowell, August 27th, 1855.

Remarks.—The *Buckthorn* is generally considered the best plant for hedges in New England. It is a slow grower in poor soil, and requires severe heading in, to get a thick and wide base to the hedge.

The three-thorned *Acacia*, or *Honey Locust*, is a rampant grower, and almost sure to get out of hand and make trees instead of hedge plants; we have not met with a good hedge of this plant. It has strong thorns, and perhaps could be kept down by severe pruning, so as to get a thick base, but we think a better hedge could be made of the

Osage Orange.—This plant has proved hardy in some cases, and tender in others, in the same vicinity; the conditions of its successful growth seem to be a dry and poor soil, wherein they will not grow too rapidly, and that they shall not be summer-pruned, which would cause a great growth of watery shoots in the latter part of the season, which would be likely to die in the winter. We know a hedge row of this plant, now six years old, which has never been pruned, growing in poor soil, eight to ten feet high, and thick at the base; it is very handsome, the foliage resembling that of the orange tree; retains its verdure under the most intense heat, and the severest drought, but if it be planted in rich soil, or highly manured, it is almost certain to winter-kill. We hope it will receive further trial.

Privet is apt to die off without an apparent cause. Many years ago, miles of Privet hedge died off in New Jersey, (*vide Fessenden's American Gardener.*)

The *English Thorn* is liable to attacks of the borer, which causes gaps in the hedge. It makes a beautiful hedge. Downing found salt very beneficial to this plant.

The *Arbor Vitæ* is not a very effective hedge plant; it makes a good screen, and as it naturally branches out low, it does not require much pruning; if it makes too long leaders, head them in.

The best time for pruning hedges, we think, is the autumn; prune so as to get a wide base *resting upon the ground;* the top will take care of itself. The reason for Autumn pruning is found in the fact that after the fall of the leaf, organizable matter is formed in the wood and buds, and the fewer buds left by the autumn pruning are charged with a corresponding increase of this substance, and grow with more vigor, and are more quickly excited into growth in the following spring.

For the New England Farmer.

MURIATE OF LIME.

Mr. Editor:—About two years since, I purchased the estate in this town upon Winter Hill, where I now reside. There are attached to the house, about three acres of land, upon which, until the present season, I have labored in vain to raise corn, potatoes and squashes. The soil appeared to be rich, but owing to the scanty production of the first season, the second it was well manured with stable manure, and such other as was produced upon the estate; but the gain was slight. There was an abundance of vines and stalk in every case, but little strength to either. The potatoes were small and watery, and did not pay for the trouble of planting.

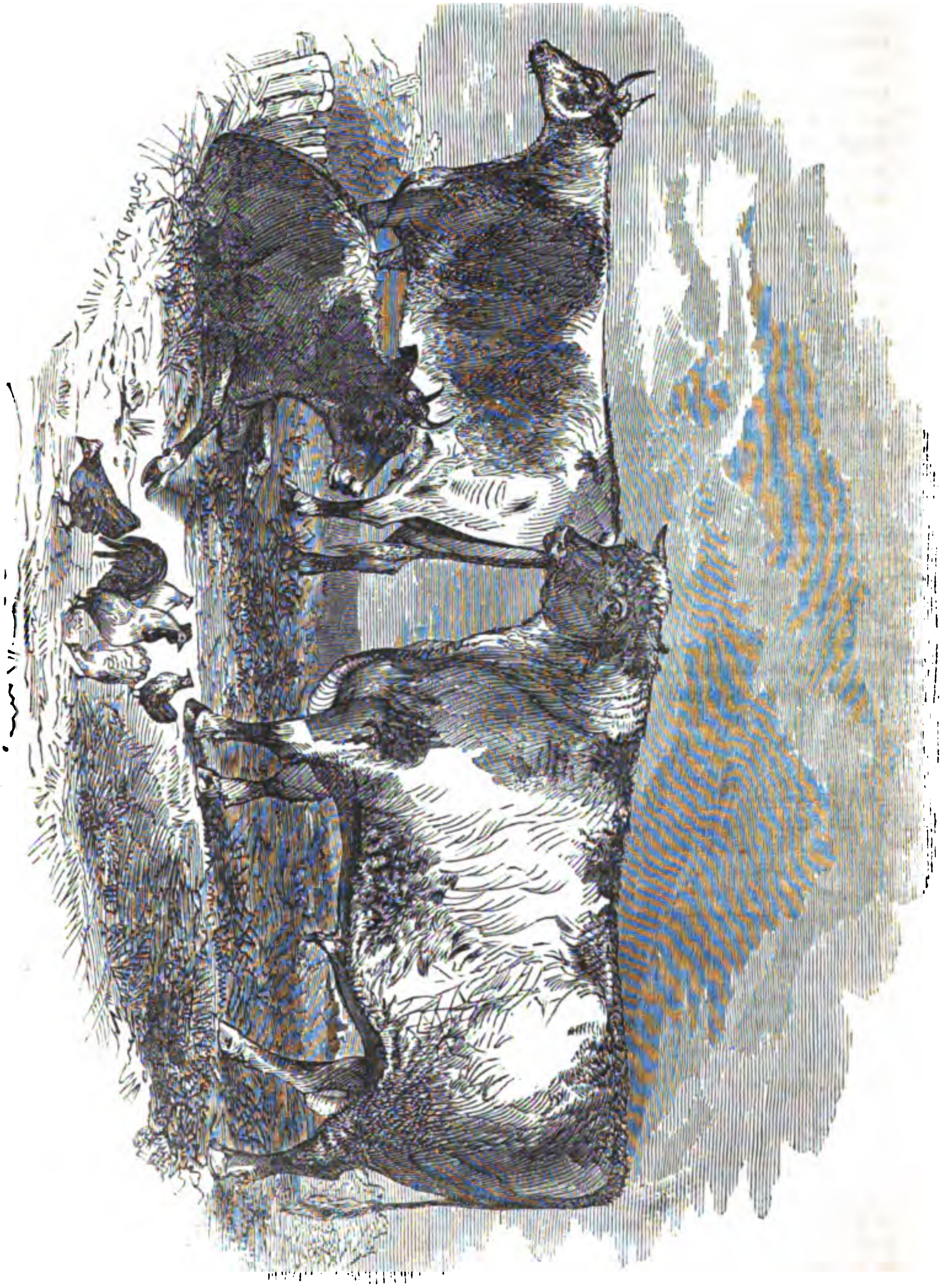
This season I was requested, by a friend, to try Gould's muriate of lime. I did so, but with little faith in its success. You may imagine my surprise, when I came to dig my potatoes, to find, not a miserable crop like that of previous years, but one of as fine potatoes as I have ever seen, and just *four* times the quantity. The difference in the yield of my corn and squash vines was in about the same proportion.

As my next neighbors have had similar success to mine of previous years, a good opportunity is offered for comparison, and any information that I can give in relation to this fertilizer, will be given willingly, as I consider my gain this year has been occasioned by the use of this fertilizer alone.

Respectfully, &c., John W. Brooks.

Somerville, Sept. 24th, 1855.

☞ Brave actions are the substance of life, and good sayings the ornament of it.



SHORT HORN BULL AND COWS.

SHORT HORN BULL AND COWS.

The sketch given above represents specimens of red and white short horn stock, bred by the late Geo. Brown, at Wintsome Hill, in Berwickshire, England. His splendid bull, named Jupiter, was got by a red and white bull belonging to Mr. Robertson, of Lady-kirk, in that county, named Valentine. At that time Mr. Robertson's stock of short horns was in its glory. The dam of this bull was got by a red bull, never named, bred by Thomas Smith, when at Grindon, in Northumberland, and was a son of the old roan bull "Duke." At that period few farmers possessed such high-bred stock as Mr. Smith,—his steers being then unrivalled for beauty and weight. The grand-dam was one of twin gray calves, produced by a gray cow, purchased in calf by Mr. Brown from the late Mr. Mason, of Chilton. One of the calves, when two years old, Mr. Brown sold for fifty guineas, and the other he retained for himself.

This bull was purchased from Mr. Brown, when one year old, for twenty guineas, and for eight years, during which he was kept at one place, he proved excellent in raising stock, and evinced gentleness which was remarkable. He had many good points,—small head, lively eye, and small fine white horns. He was completely filled up behind the shoulder, a point in which many fine bulls are deficient. He had a long quarter, a very thick flank, and ribs very round. His forearm was very strong, neck vein full, and brisket not too deep, as is often the case with bulls. His back was remarkably straight and broad, the rump full and round. His neck and shoulders were thickly sprinkled with curled locks of gray hair, the entire body being covered with fine soft hair. The face was singularly ornamented with curly hair, shedded from a line down the front of the face, seeming as if combed toward each eye; and the hair above the eye seemed combed up to meet the locks from the face. His hide was loose, thick, and soft, and the touch mellow. He had a most robust constitution, and never had an hour's illness, during a life of nine years. He was generally kept in ordinary condition, getting in winter only a few turnips, and being principally supported on straw. When killed, his flesh was fine, and resembled ox, more than bull beef.

For the New England Farmer.

THE TEWKSBURY COW.

I was much gratified on Wednesday, by the sight of this extraordinary animal, at the Show at Chelmsford, of whose products I have read in the statements made by her owner, Mr. Reed. I have no doubt of their correctness, but still, was greatly disappointed in her appearance. She is not handsome. She has a coarse, bony, ill-looking aspect, occasioned, beyond doubt, by her propensity to convert all she takes into milk. I can readily believe that an animal of her size will yield *two and a half pounds of butter* per day, when fully fed; but for my use, I should prefer the *two pound heifer* exhibited by Mr. Sheldon, of Wilmington. I have never met the man, who had more correct ideas of the points of a good animal than Mr. S. He is one of the right sort of farmers, who understands both how "to hold and drive,"—may his success be proportionate to his knowledge. *.

September 20, 1855.

MIDDLESEX CATTLE SHOW AND EXHIBITION.

The annual festival of the Middlesex Agricultural Society took place on Wednesday, September 26th, a little earlier than usual—the first Wednesday in October being the time at which most of the exhibitions have been held. For several days previous, there were indications of a storm, the wind prevailing from the east, with occasional sea-mists and squalls. On Wednesday, however, the sun soon dissipated the vapors that curled over the streams, or rose slowly, in fantastic forms, from the low grounds, and at nine o'clock, the air was as pure and elastic as on a clear October morning.

So old Middlesex was awake again. Men and maidens, old folks and children, all sorts of vehicles, mowing and washing machines, plows, with some of the prodigies of nature, in human form, thronged the avenues to the Fair Grounds, and made it a gala day indeed.

Then staid and sober milch cows, staring and wondering what the tumult could mean, came from their quiet and sweet pastures—fat oxen rolled their sleek sides along from their "fall feed" grounds, antic colts with their proud dams from the hills, prim pullets with their crowing husbands from the poultry-house, gabbling geese from the pool, ducks from the pond, and fat, sleepy, grunting pigs, with their cousins and uncles, from their stercoraneous abodes. Noble "fifteen and sixteen hand high" horses also came, touching the turf as lightly as though it were to fall from under their feet at every step, and neighing, prancing and snuffing the invigorating breeze. All seemed happy to witness the exhibition, and mingle in the festivities of the day.

At nine o'clock the *Plowing Match* took place on a field opposite the Society's grounds. Thirteen teams entered, and the contest was animated and interesting, which a large number of people witnessed with apparent satisfaction. The sod was thin, and in some places small stones proved an interruption to the plow; but the work was generally skilfully accomplished.

The *Spading Match* took place at ten, immediately after the plowing, and, as usual, drew a large concourse of spectators. The stirring strains of the Boston Brigade Band lent their aid to the occasion, and the scene soon became an animated one, the spectators at once fixing upon their favorite competitors, and becoming as deeply interested as the spaders themselves. There were nine competitors for the prizes, who performed their parts in a handsome and expeditious manner.

The *Drawing Match*, or, rather, the "Trial of Strength and Skill" of working oxen, came next in order, and ten teams of noble oxen were enlisted in the trial. Hundreds of interested spectators gathered round this part of the exhibition, and witnessed a remarkable degree of skill in managing loads, as well as of power to move them.

The *exercises at the church* took place at half past twelve o'clock. A procession was formed at the Society's grounds, under the marshalship of E. W. FISKE, Esq., of Waltham, and, escorted by the Boston Brigade Band, proceeded to the Unitarian church to listen to the annual address, which was delivered by the Hon. N. P. BANKS, of Waltham. It was attentively listened to by a large audience.

After the services at the church were closed, the procession was re-formed and marched to the Town Hall, where an excellent dinner had been provided by Mr. J. B. SMITH, of Boston.

After the good things upon the tables had been duly attended to, the President, SAMUEL CHANDLER, Esq., of Lexington, arose, and briefly expressed his gratification at seeing so many friends of the Society present at the annual festival. In the name of the Society he extended a hearty welcome to them. Sentiments and speeches were given, sparkling with wit and humor, intermingled with which were the reports of committees and the announcement of premiums which had been awarded. Among the guests at the table was the Hon. SETH SPRAGUE, of Duxbury, who came as a Delegate from the State Board of Agriculture. In answer to a sentiment alluding to the Board, he made excellent practical remarks, giving evidence of his accurate observation of the several departments of the farm, and particularly of the effects of crossing in our neat stock. The whole entertainment at the table was of the most interesting character.

THE DISPLAY OF FRUIT, VEGETABLES, ETC.

The show of Fruit in the spacious hall of the Society was very fine, and fully equal to that of any former year. Three long tables, and part of a fourth, were loaded with some of the finest fruit we have ever seen. The display of apples was especially superb. Finer Porters than some exhibited were never raised, and the same might be said of some other varieties.

The show of pears, although of course not so numerous as the apples, was very fine, and embraced handsome specimens of this delicious fruit. Of grapes and peaches the contributions were not numerous.

Of vegetables there was a noble display. All varieties of garden products were numerously represented by superior specimens. This portion of the exhibition showed that the good farmers of old Middlesex do not neglect the substantials in their farming.

Among the articles in this department was a unique and beautiful plant called the "Purple Cape Broccoli," exhibited by Simon Brown, of Concord. The foliage was rich and abundant, and the outline graceful.

The fruit was so plentiful that the elegant contributions of the ladies was almost crowded from the table. There was a variety of specimens of needlework, handsome tokens of taste and skill, of which the fair contributors might well feel proud. Of paintings and crayons there were but few.

The "bread and butter" department looked nicely, as though a capital lunch might be enjoyed if the injunction "touch not, taste not, handle not," was not vigorously enforced.

The contributions were arranged with much taste, and the hall presented a beautiful and gladdening sight. Long tables groaning under the weight of luscious fruit, and a profusion of wholesome vegetables, proclaimed the "fatness of the land," while draperies of brilliant carpetings suspended from the rafters, and fine specimens of paper hangings hung upon the walls, imparted a gay and lively aspect to the whole.

The whole interior arrangement of the building was under the direction of JOHN B. MOORE, Esq., of Concord, whose familiarity with fruits and skill in arranging them is scarcely surpassed. Under his judicious management every thing was orderly, and made agreeable to all. The Society is under obligation to him for his faithfulness and skill.

The beautiful carpet-rugs, which ornamented the centre of the room, were from the house of TENNY & Co., Haymarket Square, Boston, and were an attractive feature of the exhibition.

THE CATTLE PENS

were not so well filled as on previous years, and the stock was not so good as at some former exhibitions. Both native and foreign breeds were well represented in the bulls, milch cows, and other neat stock. Several pens were filled with fine looking fat cattle. Of horses there was a larger number than we have ever seen on exhibition in the Society's grounds before.

Swine were not numerous, though there were fine specimens presented, and among them some slate colored pigs of the Essex variety, contributed by CHS. B. CLARK, of Concord. They were beautiful in form, and are said to be a valuable breed.

The day throughout was pleasant, the attendance large, and the Show a successful one. Middlesex county has held three this month, each of which we have attended, and believe them to be among the best we have ever witnessed. In fruits,—with the exception of our neighbors in Essex—we think they have not been equalled in the State.

For the New England Farmer.

GROWTH OF SQUASH VINES—CAN WE SEE PLANTS GROW?

Messrs. Editors:—On the morning of the 15th ult., I measured accurately two squash vines, and on the following morning, at the same hour, again measured them; one of them had grown over nine, and the other over ten inches during the twenty-four hours. The night could not have been very favorable for growth, as with us the wind was from the east. The more rapid grower of the two is from the seed of a California squash, purporting to weigh one hundred and sixty pounds. I observe that the female flowers of this vine have ten divisions to the stamen instead of eight, which is the number in the flower of the common squash. "You can see them grow," we sometimes say, to indicate a maximum of growth. For a loose hyperbole, this is passable, among the thousands of other innocent exaggerations which serve to give life to conversation and open folks' eyes, withal; but it would be more *accurate*, to say that we can see that they have grown; for, if we reflect a moment, we perceive that a growth of twelve inches in twenty-four hours would be, on an average, half an inch per hour; now, as I draw my thumb along on the table, with one eye on the clock above, I perceive that the slowest motion possible for me to detect with the unaided eye, must pass over one inch in from two to four minutes, so that it may be safely affirmed that a growth, to be perceivable with the unaided eye—without the microscope—must be at the rate of from thirty to sixty *feet* in the course of twenty-four hours! a growth, as we are all well aware, attained by few, if any plants in the temperate zone during the entire season.

What revelations the microscope might make we cannot say; though from the above facts one would think in the case of these vines, that with a power of from thirty to sixty, it might be possible to witness that most wonderful of all vegetable phenomena, the growth of plants; and with one of still higher powers to investigate still more deeply, perhaps, even to the detecting of the elaboration and circulation of the vegetable juices! That final wonderful transformation of elements into vegetable tissue, analogous to the change of elements in the capillary vessels of animals into bone, muscle, &c., must, in like manner, probably ever remain hidden from man's feeble powers.

Yours truly, James J. H. Gregory.

Marblehead, Sept. 25, 1855.

For the New England Farmer.

SEED POTATOES.

Mr. Editor:—Much has been written about seed potatoes, some advocating the planting of small potatoes. Now that small potatoes will sometimes produce large ones, I do not doubt; but that is not the rule. "Like produces like," is a law of nature, and until that law is abrogated, as we plant, or sow, in the physical, vegetable and the moral kingdom, that shall we also reap. Why don't those writers who recommend small potatoes for seed, recommend small corn, small beans, and small, inferior seeds of all kinds. This they ought to do to be consistent. I had the curiosity, last spring, to try the experiment of small potatoes to satisfy myself, although pretty well satisfied in my own mind beor .

I paid a dollar a bushel for some good sized potatoes, and planted them, putting one in a hill without cutting, except a few of large size, then I had a few small ones of the same kind which grew with the others, and were sorted out about as large as robin's eggs, some a little larger, and planted them side by side, with the same manure and cultivation, and I have just dug them, and found that twenty hills of the large seed produced more in measure, and larger in size, than thirty of the small ones. On a small patch where I did not expect more than 15 bushels, it being dry green sward, I had 25. Will some one give the result of his experiences.

Yours, N.

South Abington, Sept. 17, 1855.

BEES.

Any body can manage bees. It is the easiest thing in the world to do it, just as it is to make an egg stand on end,—after one knows how. A man who knows their nature, and habits, and can avail himself of their instincts, can make them do just what he pleases. Ten thousand men have kept bees for thousands of years, and have watched their doings, and many have written learned treatises upon the economy of their Commonwealths. But it has fallen to Huber and Langstroth and a few others to discover the few simple secrets which, while they are unknown, have rendered their movements so mysterious. Any body can move a hive of bees from its stand, invert it and call them out, and handle them as he pleases, and restore them to the hive with perfect safety, and the bees will be all the time perfectly good-natured, and not an individual among them will offer to sting him, and yet very few persons dare make the attempt, and still fewer know how to do it with safety. The object of the miser is to lay up treasure. This occupies his thoughts and his hands day and night. His heart is with his gold. It is the god of his worship. He has no place in his mind for any other thought. Upon the slightest alarm, he grasps his money bags. If he hears a step at the door in the darkness of night, he deems his treasure in danger. He believes all others attach the same value to it, and that when they approach his premises, they can have no other object but to gain possession of it. The bees, in their way, are perfect misers. They labor incessantly for about eight months in the year, to amass honey. They undergo the severest toil to search it out, and transport it to their storehouses. In the early spring, from the flowers of the willow, of the alder and the maple, from the blossoms of the cherry and the nectarine and the peach, and through the heat of summer, from the bean and clover, and a thousand sweet flowers, and as the autumn approaches, from the mature juices of the plum, the peach, the pear and the apple, they suck the sweet nectar, and bear it with unfailing instinct to the storehouse which their fellows have built to receive it. This is the great work of their lives, the one end of their being. To lay up, secure and defend their treasure all their instincts are directed.—When engaged in their daily work, they have no other purpose. When attacked, all their movements have reference to the security of their honey. When bees are alarmed, they believe with the miser, that their treasure is the object of the invader; as it is the only treasure of any object to them, they act on the belief, that it is of equal value to others. If the alarm is repeated, each one drops all other employment, whether he is constructing a cell, or filling it with honey, or in whatever work he may be employed, and sets himself at once to secure as much honey as his honey bag will contain. Each one secures a share of the pure limpid nectar. Each sucks in his drop of honey, that at least so much may be secured from plunder. It is surprising with what rapidity a bee will fill himself with honey, when alarmed. He draws it in, in a continued stream till he can hold no more, and then quietly awaits the result of the alarm. Having secured as much of his treasure as he can, the instinct of his nature is satisfied. He has done all he can. And now comes the secret by the knowledge of which the operator can handle and manage them as he chooses. *When a bee is full of honey he never stings*, unless pinched or otherwise injured. The operator has only to induce them to fill their bags with honey, and they at once become harmless. This is a uniform law of their natures, as certain and reliable as any other law of nature. The knowledge of this law, and a little expertness in managing the alarm in such a way as to induce each bee to seize his portion of the common treasure, is the only magic possessed by the bee charmers, which enables them to astonish by their boldness the uninitiated lookers on. The drones have no stings, of course they may be handled with impunity. They may be distinguished by their larger size. The different keys upon which bees pitch their note indicate their condition. When they are full of honey their note is on a lower key, and has a quite uniform hum drum tone. When they are empty, their note is sharp and angry. When a swarm have filled themselves it may happen that one or more may be found, that have not secured any portion of the treasure. Perhaps they have just returned to the hive, and have had no opportunity to fill themselves. These will fly about in great agitation uttering a sharp piercing note. If you are not careful you may get stung by them. Their angry note is readily distinguished from the note of the rest of the swarm, and the operator puts himself at once on his guard. A few days since, I had the pleasure of seeing Mr. Langstroth, on the grounds of Mr. Brown, *Editor of the New England Farmer*, take a large old hive, full of bees, and remove it from its stand, and turn it bottom upwards, and call out the swarm into an empty box—take them up by handfuls, and handle them with the same freedom, as he would so many peas. He broke open several bees and shewed the full honey bag. He struck down one that was uttering a spiteful note and threatened to sting him, and shewed that his bag was empty. Not having secured any portion of the common stock, he was obeying the next instinct of his nature, and endeavoring with his own unaided weapon, to drive off the invader. Mr. L. has constructed a very ingenious hive, in which the operations of the bees, and the progress of their work, may be readily watched from day to day. In this hive, the comb is constructed in plates about an inch thick, entirely distinct from each other. Any one of these plates may be taken out, the bees shaken or brushed from the comb. The comb is then detached from the frame that contains it. The frame is replaced, and the bees immediately set themselves to work to reconstruct another comb in place of that which has been taken away. The whole arrangement is very complete, and shows a thorough knowledge of the nature and habits of bees, a knowledge which has cost him years of close and careful observation. We commend this hive to those who raise honey, and who would always have it within their reach, and especially to those who like to study the habits and economy of the curious and "busy bee."—*Country Journal.*

For the New England Farmer.

THE FARMER.

Does the farmer dig the dirt?
Aye, aye;
Does he wear a coarse shirt?
Aye, aye;
And if his cheek is brown
With the kisses of the sun,
Is he less a gentleman?
Nay, nay.

Does the farmer plow and sow?
Aye, aye;
Does he wield the spade and hoe?
Aye, aye;
And if his hand is hard,
And his feet be roughly shod,
Shall we give him less regard?
Nay, nay.

Does the farmer work for all?
Aye, aye;
Labors he for great and small?
Aye, aye;
If from out the farmer's store
Comes the bread for rich and poor,
Should we honor him the more?
Yea, yea.

Give the farmer then his due;
Aye, aye;
Though he *serves*, he's *master* too,
Aye, aye;
And may Heaven its blessings shed
Down upon the farmer's head,
'Till we cease our cry for bread,
Aye, aye.

Somerset, Mass., Sept. 19, 1855. MYRA MYRTLE.

For the New England Farmer.

LEXINGTON FARMERS' CLUB.

On the afternoon of the 24th inst., the citizens of Lexington, under the auspices of the Lexington Farmers' Club, got up an exhibition that was highly creditable to that good old farming town. We have seen larger exhibitions of fruit and vegetables, but we never saw a better one. The samples of apples were equal to the best, and prove that the citizens of this town take a deep interest in this department. The market-gardeners brought forward some of their best samples of vegetables, and the specimens of needle-work proved that the fair ladies of Lexington take an interest in the pursuits of their fathers and brothers and husbands. After witnessing the exhibition, we formed a procession, and marched into the old meeting-house, and listened to an address from N. P. Banks. At 7 o'clock, we sat down to supper at the Lexington House. The supper was not only good, but elegant, and everything went off in fine style under the Presidency of Mr. Copeland. After satisfying the wants of the appetite, the assembly was addressed by Mr. Banks, Professor Nash, Dr. Reynolds, of Concord, Rev. Mr. Pope, of Somerville, Rev. Mr. Staples, of Lexington, and Gen. Samuel Chandler, President of the

Middlesex Agricultural Society. The whole affair was admirably managed, and we have no doubt, will contribute to the interest which has been already awakened in the various departments of agriculture and horticulture, among the inhabitants of this patriotic town. Yours, J. R.

For the New England Farmer.

A GLANCE AT A NEW HAMPSHIRE FRUIT GARDEN.

Pear Growing at Laconia.

BY H. F. FRENCH.

Up in New Hampshire, some twenty miles above Concord, on the Concord and Montreal railroad, lies the new town of Laconia, recently created by an act of the General Court, out of part of the territory of Meredith. The village is separated from Gilford by the clear and beautiful stream, through which the waters of the small bays above, and of Winnipisseogee Lake still higher, are brought into Sanbornton Bay. This stream is of itself "a thing of beauty," and so, according to somebody, "is a joy forever" to the beholder. It is worth a journey from old Concord, in the Bay State, for Hawthorne, and Emerson, and Thoreau, and Channing, who have so sweetly "dreamed dreams" over the tranquil waters of the sleeping Concord and Assabeth, to "see visions" by the rushing, sparkling, wakeful, though I believe nameless river, which brings the mountain springs from "the Chrystal Hills," in a broad stream, so constant and rapid, that the heat of summer does not narrow it, nor the chains of winter bind it for a moment. To be sure, one seems to hear in its noisy current, loud boastings of its power and usefulness, how, after finding its way to the Merrimack, it can turn the mighty factory wheels at Manchester and Lawrence; and after all, one begins to doubt, whether a more serene and peaceful existence, like that of the Concord, whose very name denotes its character, is not better than this mad spirit of unrest, and this ability to serve the purposes of man, which tempts him ever to enslave and ruin.

But we need not detract from the striking beauty of this dividing line of Gilford and Laconia, by any efforts at sentiment. Instead of following it in fact or fancy to the ocean, take an afternoon drive with an agreeable companion over Pollard's Hill at the east, or farther on, ascend Mount Belknap, and a view will meet the eye, such as is not surpassed for beauty and grandeur in New England. Below, on the west, stretching away, among hills which push boldly down to its shores, lies the Great Bay, while at short intervals above, Long Bay and Round Bay reflect the light of the setting sun, and Laconia, and Gilford, and Lake Village, nestling down between the hills in the distance, seem like some fairy dwellings in a vast and variegated artificial pleasure ground of the giants. Northerly, in full view, lies the great lake, with its countless islands, one, it is estimated, for each day in the year, the lake so beautiful, that it was called by the Indians by its present name, which signifies "The Smile of the Great Spirit," and away in the distance, the White Hills, known first in history as "The Chrystal Mountains," lift up their towering heads.

But I must descend from these heights to more sober views, and leave scenes on which it is pleasant to look back, merely saying in conclusion, that sensible men and women of late, who leave the cities in summer, are finding out the villages I have named, and spending their weeks of leisure there, instead of seeking the crowded hotels of fashionable watering-places.

In this new village of Laconia, among many other gentlemen of taste in horticultural matters, lives my friend and cousin, Henry J. French, whose well-deserved honors, in the way of fruit exhibitions at our State Fair, I have, from the similarity of our names, sometimes divided with him, while he, innocent victim of this, to him, unfortunate coincidence, has occasionally had laid to his charge some less desirable products of my pen. As for myself, I have no idea of applying to the Legislature for a change of name, to escape the credit of his fruit-growing. He is at liberty to do so, whenever he finds the vicarious punishment of my editorial sins too grievous to be borne. Mr. French has at present, in my judgment, decidedly the best fruit garden I have ever seen in New Hampshire. It covers about two acres of land, of what I should call, part a sandy loam, and part a gravelly loam, over a hard pan, a little elevated above the level of the village generally, but not so high but that the mist which usually rises in the autumn from the water protects it from the early frosts. He has forty varieties of pears, nearly all in bearing this year, all the best varieties of plums, a good selection of apples, with most of the small fruits that can be cultivated in this region. He has occupied the place but eight years, though a part of his grounds had been before occupied by Hon. Wm. C. Clark, now of Manchester, who had commenced the work of planting fruit trees. I have elsewhere seen well cultivated trees, and perfect fruit, but I think New England could not show, this season, a garden containing an equal number of pear and plum trees more uniformly healthy, and more fully laden with fruit in its highest perfection. The secret of his success is, that having a location neither too wet nor too dry, he has ordered his trees from the best nurseries, paid for them the highest prices, and given them the best cultivation he knew how to bestow. Most of us do no such thing. We know that dwarf pears require a rich soil, deeply trenched, that they should be headed in, and kept in pyramidal form, and that the fruit be thinned out, to prevent overbearing. I know a great many cultivators who "know the right, and yet the wrong pursue," in all these matters. Mr. French excavates three feet deep, to plant a dwarf pear. He considers it essential to plant the tree three inches below where it was budded, and says he is not aware that he ever manured a pear tree too liberally, though he constructs heaps of compost for his two acres that would be respectable for a small farm. One thing is noticeable, in regard to all his trees, including the apple. They are all trained low, with short stems. This is commonly objected to, in apple orchards, because of the inconvenience of cultivating among them, and this consideration is to be weighed, and a proper medium preserved. I have myself always despised long-legged trees. The first object is to obtain fruit, not to cultivate the land, and low trees I think are more fruitful than high ones. And besides, the labor of gathering fruit from tall trees in an orchard is so much greater as to compensate for a great deal of extra cultivation by hand, where cattle cannot work close to the trunks. Mr. French's mind is made up decidedly, on that point. He says he is sure such a drought and heat as that of 1854 would have destroyed many of his trees, had not the ground under them, and their trunks, been shaded by the branches. I thought the experience of my friend so valuable, especially to those who are cultivating in his neighborhood, that I took the liberty to pencil down the results of his experiments in regard to some of the known varieties of pears.

We are all aware, that success in pear culture is very various, even in the same neighborhood, and on soil and with treatment much the same. In the region about Boston, where fruit-growers meet regularly and compare notes frequently, it might be presumptuous, in any individual, to set up the short experience of himself or another against the general opinion. Mr. French is nearly a hundred miles from Boston, and sixty from the ocean, and it has seemed to me that his observations might prove a valuable contribution to the cause of fruit-growing. I will take the responsibility, therefore, of stating briefly the opinions which he has formed, leaving it to each person who reads, to judge how far they may be useful, as a guide to himself.

Ten Varieties of Pears Approved.

1. BLOODGOOD.—On pear stock; ripe last of August; medium size, bears well—good.
2. BARTLETT.—On pear and quince, thrives well on both, though best upon pear stocks, which produce more abundantly, and larger fruit.
3. BELLE LUCRATIVE.—On quince; ripe early in October; a free growing, hardy tree, and great bearer. Fruit fair and perfect, and of delicious flavor, and ripens anywhere, with as little care as a Baldwin apple. On the whole, the most valuable variety of all the pears, so far as tested.
4. LOUISE BONNE DE JERSEY.—On quince; ripe October 10th; a hardy, free bearer; fruit fair, high colored and fine flavored, a valuable pear for general cultivation.
5. FLEMISH BEAUTY.—The most splendid of all pears in size and color; better than the Bartlett in flavor, and of large size; on quince—ripe in the middle of October.
6. BEURRE D'ANJOU.—On quince; middle of October. A fine, healthy, happy looking tree. A free bearer, grows well. Fruit high colored and good, and ripens without care.
7. GRAY DOYENNE.—November; on quince; not a free bearer. Nearly equal to the old St. Michael, which it resembles, and which is admitted to be the perfection of pears. Fruit fair and delicious.
8. BEURRE DIEL.—On quince; December; a free bearer, and healthy; fruit high flavored, russet colored.
9. WINTER NELIS.—Late winter fruit; on quince; a fine fruit, which ripens well in a common cellar. A shy bearer, and grows irregularly.
10. SECKEL.—On pear; first of November; a feeble, slow growing tree, though healthy; fruit small but delicious.

Five Varieties of Pears Condemned.

1. DEARBORN'S SEEDLING.—On pear; ripe 1st September; a small, coarse fruit, with nothing to recommend it; worth about seventy-five cents a bushel, and not worthy a place in a gentleman's garden, so far as tried here, though of high reputation about Boston.
2. DUCHESSE D'ANGOULEME.—On quince; a good grower, and bears well. Fruit very large and very fine, when ripe, but needs about a month more, at each end of the season, to make it sure in this latitude.
3. GLOUT MORCEAU.—On quince; shows a good disposition to grow and bear, but the tree blights worse than any other variety, except the
4. PASSE COLMAR.—On quince. Nearly every tree ruined by the blight—entirely hopeless.
5. VICAR OF WINKFIELD.—On quince. Tree hardy and grows well. Fruit fair and large, but with the best care here, coarse, corky, choaky, and unfit for an amateur to eat. Often of fine quality in Boston, and sold at a shilling each.

The above are the present impressions of Mr. French in regard to the fruits named, differing widely, as to some varieties, from the received opinions. Dearborn's Seedling, for instance, I am told by Mr. Bull, of Concord, Mass., who is high authority in such matters, is with him a first-rate fruit, nearly equal in flavor to the St. Michael; and the Glout Morceau, which at Laconia is destroyed by the blight—a dozen in a row—while other varieties grow finely on each side of it, at Mr. Bull's place, is a fine, healthy tree.

WIND SUCKING.

This detestable habit in horses may be cured, so say contributors to the *Ohio Cultivator*, by the following process:

Wind sucking is a habit, (like chewing tobacco) much easier acquired than forgotten. It can only be practised however under favorable circumstances—that is, when there is some object on which the horse can rest his teeth, located about as high as his breast—such as a common manger, for instance. The best remedy, therefore, is to place the feeding trough as *low* as the ground or floor of the stable, and the hay-rack as *high* as the horse can reach; and see that there is no object of an intermediate height for him to rest his teeth upon to suck wind. Care must also be taken that when out of the stable, he is not allowed to stand near a fence or stump, or any object of convenient height for practising this habit. In the course of a few months, say five or six, he will forget the trick.

Jay County, Ind. G. Bateham.

Another Remedy.—Tie a cord around the neck of the horse sufficiently tight to prevent him from enlarging the throat, as is done in wind sucking, but not so tight as to obstruct breathing or swallowing. A tight halter, with throat strap, will answer this purpose. It will need to be worn for two or three months. This remedy is easy, and I have found it quite effectual.—*A Subscriber.*

For the New England Farmer.

ESSEX AGRICULTURAL SOCIETY.

REPORTED BY J. F. C. HYDE.

The annual Fair of this Society was held at Haverhill on Wednesday and Thursday, Sept. 26th and 27th, and though there was quite a shower on the morning of the second day which threatened to mar the pleasures of the occasion, yet it did not at all interfere with the successful carrying out of the admirable arrangements that had been made. On the first day, among other things was the drawing match, which took place a little north of the village. The loads were for one yoke of oxen, two tons, and then four tons, which were drawn up hill by several teams in fine style. Loads for single horse teams, a cord of hard wood; the ease with which the work was done showed that the animals had been well trained for work.

SPADING MATCH.

There were nine—all Irishmen—entered for spading, but only seven took part; the lot to be spaded by each person was six feet by ten, and the time occupied in doing the work was seven minutes. The work was not as well done as it might have been, had there been less excitement and confusion on the ground.

The show in the Town Hall, which we looked in upon the first day, was very good, and in some respects better than is usually seen at these fairs. That of manufactured goods was fair; boots and shoes, for which this county is noted, taking the lead. There were fine specimens of worsted work, which do credit to the good ladies of Essex. The show of fruit and vegetables was exceedingly fine, especially of apples, of which we think we have never seen better. Pears were also shown in abundance; among others we noticed a most splendid box of the Beurre Clairgeau, a new variety of great promise, which were contributed by J. Fowler, of Salisbury; noble Flemish Beauties, Duchesse d'Angouleme, and many others. Among the apples, J. B. Barker, of Methuen, took the lead; he receiving very justly the first premium. We noticed on the tables a new grape from the Rev. W. C. Richards, of Lynn, called the "Millard Seedling," which is said to be the product of a raisin seed; the Committee awarded it a premium for the best seedling. Of Flowers there was no lack,—Dahlias were contributed in great variety by that prince of Dahlia growers, Gen. Oliver, of Lawrence. Bouquets in great profusion adorned the hall. Of Vegetables there was a great abundance, especially of mammoth squashes, some weighing over 150 pounds each; potatoes very large and handsome, and in short, the vegetables as well as fruit, did great credit to the farmers of that county.

DAIRY PRODUCTS,

were not very plenty, though there were a few specimens of good butter shown, but no cheese.

EXHIBITION OF STOCK.

There were a few superb horses that attracted considerable attention. The stock was well arranged in suitable pens, which were nearly all full of good cattle and swine. Some improvement has been made in this department, but there is room for a good deal more. We noticed among others, fine Jerseys and Devons, &c. The working oxen were good.

PLOWING MATCH.

This was the first thing to come off on the second day; it took place in an old pasture a mile or more from the village. Of those who plowed, five used double ox teams, single plows; four, double ox teams, double Eagle plows; three, double horse teams, double plows; five, double horse teams, single plows; and eight, ox teams, single plows. The land was stony and with a tender sward, and was well calculated to test the skill of the plowman and the good qualities of the plows. The work, taken together, was well done, though we think there is room for improvement in this direction.

The Trotting Match did not come off as expected, much to the disappointment of the great crowd that had assembled to witness it.

THE ADDRESS.

The next thing on the programme were the services at the Centre church, which consisted of Prayer, singing of an Anthem, and Original Hymn, and an Address, by Dr. Nichols, of Haverhill.

His subject was, "What Chemistry has done and is capable of doing for the Farmer." He spoke of those farmers who availed themselves of the light that chemistry had thrown on the subject of agriculture, as being the most thrifty, and the first to find out and make use of improved tools, &c., for the farmer's use. While the other class believe in physical abilities, and trust to the predictions of the Old Farmer's Almanac, and would not, on any account, kill their hogs unless the moon was right. A knowledge of Chemistry taught all the secrets of vegetable growth, and is alone capable of teaching us all that we can know, of those forces that produce soils and the plants that grow upon the soil. Guided by its light there is no uncertainty; without it, all is doubt and uncertainty. The advantages of deep plowing and the thorough pulverization of the soil was ably treated. Also, the compost heaps which might be made up to advantage with lime, pond mud, loam from beside the walls, &c. The liquid excrements of the animal he considered equal in value to the solid, and should be carefully saved by a reservoir which might easily be built by digging out and cementing around so as to make it water tight, answering the purpose and being cheaply built. In closing, he said the car of knowledge is rapidly passing, and if you do not jump upon the platform you are lost. Sluggards, slumber no longer, if you intend to succeed in the business of farming. The address is one that may with profit be taken to the homes of the farmers, and read and pondered.

THE DINNER.

After the address, a large company repaired to the new tent on the Common, where a good dinner had been prepared by Mr. Steele, of Haverhill, who did himself credit on this occasion. After a blessing had been asked by the Rev. Mr. Perry, the company partook freely of the viands that loaded the tables; and after the physical wants had been supplied, the President introduced to the company his Honor Simon Brown, who made some very appropriate remarks, and was followed by Mr. Tenny, of Vermont, Mr. Lewis, of Framingham, Mr. Duncan, of Essex, Mr. Coffin, of Boston, and others.

The reports of committees appointed to award premiums were read in the church, and this closed the performances of the day.

The attendance was very large both days, the people coming from far and near to be present at this annual gathering.

We were quite pleased with our visit to Haverhill, and would say to all the readers of the *Farmer*, if it should be their good fortune to visit that place, not to forget to call on friend Brown, of the Eagle House, who so well understands how to make his visitors feel at home.

REMARKS.—Our reporter is too modest to state that he spoke at the dinner table, but we are assured that he made a very practical and sensible speech.

RETURN OF THE ARCTIC EXPEDITION.

Dr. Kane and his party, together with the Relief Expedition, under Lieut. Hartsteine, have safely arrived at New York. Some account of these expeditions,—which, it is to be presumed, will be the last sent out by our government,—will doubtless interest our readers.

It will be remembered that Dr. Kane, whose love of adventure has carried him into almost every part of the globe, sailed from New York in May, 1853, in the little barque Advance, with a crew of sixteen picked men, in search of Sir John Franklin's expedition. Since his departure, Dr. Kane had been heard from but once, in July, 1853, at Upper Navick, on the coast of Greenland, from whence he was to proceed to Smith's Sound, and forcing the vessel to the utmost navigable point, secure her for the winter, and prosecute the search by means of sledges. The protracted absence of Dr. Kane induced the last Congress, in accordance with the generally expressed wish, to authorize the Secretary of the Navy to dispatch a suitable expedition to the rescue of the adventurers. The sum of $150,000 was appropriated for the expedition, and the intention of Congress was carried out by the purchase of the propeller Arctic, and the barque Relief, which were properly fifted and equipped, and dispatched to the Arctic regions in June last. The expedition was confided to the command of Lieut. Hartsteine, of the U. S. Navy, and the wisdom of the choice is evinced by the return of the party, with Dr. Kane and his companions under their charge.

The following is a summary account of the voyage of Dr. Kane and his associates:

The expedition left New York May 31, 1853. The first port made was St. John's, Newfoundland, where the expedition was shown every attention by the Governor and inhabitants. They obtained there eight Labrador dogs for use in sledging in the snow. They took aboard, also, all the beef they could obtain, and *marled* it. About the 4th of July they arrived at Fishkenæs, a settlement in the southern part of Greenland; Governor Lassing at this point received them with great hospitality, and afforded them every facility in the purchase of furs and eider-down, &c. They took on board at this point an Esquimaux man who was to hunt for them.

They left Fishkeæns and proceeded next to Sukkertoppen, so called from the resemblance of a mountain in the vicinity to a sugar-loaf. This place presents many beauties of Arctic scenery. They found there a few Danes, and obtained from them an abundant supply of reindeer furs and sealskin coats. They reached next a place called Proeven, a place fifty miles south of Upernavik. Here they received the aid of Christianson, who is well known in the annals of the Arctic. They obtained additional supplies there. While they remained there an Esquimaux ball was given in honor of the expedition, which was attended quite numerously. Took on board twenty Esquimaux dogs, and after remaining two or three days, took their departure for Upernavik, where they arrived during the last of July, and obtained Mr. Peterson, who had been with Captain Penny as interpreter, for the expedition, for the purpose of managing the sledging by dogs. From Upernavik they pushed on to the north. They met no ice until they had proceeded considerably north of Devil's Thumb, in Melvill bay. They expected to encounter ice in the bay, but had a very fortunate passage, being detained therein only about two weeks. They did but little warping. They then made the open water, and off Cape York came to the North Water, so called by sailors, and had a good run thence until the 6th of August, when they entered Smith's sound with no prospect of ice, and sailed on until they reached Littleton island in lat. 78 deg. 20 min., which is the highest point reached by Capt. Inglefield in 1852. The expedition landed at the island and erected a *cairn*, in which were deposited letters, in hopes that Capt. Inglefield on his return would find them and convey them to England, to be forwarded thence to America. Their most important object, however, in landing at Littleton island, was to deposit provisions and a large metallic life-boat, which, in case disaster should overtake their vessel, they might be able to reach it, and by it make their return to Greenland. From Littleton island they saw the first block of ice. They then pushed on north, and the first ice they met with was in lat. 78 degrees 32 min. They were here compelled to make a harbor to protect themselves from the floating icebergs. In a few days pushed forward again by warping, about 15 miles, passing three small islands of rocks, under the lea of which they moved the vessel, but a gale springing up their hawsers were broken, and they were driven to sea. The gale was quite heavy, and as they were runnig before the wind amid icebergs and large pieces of ice, one struck the vessel's quarter and stove in her bulwarks. They escaped further danger, and again made for the north as fast as they could by means of warping, frequently close in shore. They were subjected to a heavy *nip* south of a point which corresponds in description to Stafford Head. About the first of September, found bay ice forming about them pretty thick, in lat. 78 deg. 37 min. Here they found a deep bay running between two headlands, and in this bay a good harbor. This formed their first winter harbor, in the winter of '53 and '54. On the south-west side of the bay were three islands about a quarter of a mile from the shore. On the back ground was a terrace of sand. Of the two headlands one is east of Stafford's Head, and the other corresponds to Thelusson Point.

The cliffs at these headlands are from seven to eight hundred feet in height, though the land back is lower. The vessel was moored to some granite island. The rocks in that region are composed of granite and limestone, with a small streak of another formation between the two. From this point Dr. Kane and party started north to examine the ice. After an absence of about a week the party returned, and active preparations were immediately made for going into winter quarters. A warm and comfortable house was built over the deck. Stoves put up and communication made between the steerage and cabin, and the men were transferred from the forecastle to the hold, where comfortable quarters were made for them. The galley was put below. A party was sent forward to establish a *cache* about a hundred miles distant. Darkness gradually came upon them, and with the exception of a few short journeys within a scope of thirty miles, the operations for the season closed, and soon entire darkness came upon them, preventing them from doing any work whatever. The year in this latitude is divided into four portions, two of which are alternate day and night, each of two months' duration; one of four months with the sun below the horizon during the entire twenty-four hours; and one of four months with the sun continually above the horizon, revolving in one circle above the horizon—as Tennyson says,

> "The midnight sun′
> Sets into sunrise."

On August 22d the party lost the sun altogether. It went at a dip below the horizon for the first time, and the nights began gradually to increase—grow longer—until October 22, when—having the day previous just raised his face above the horizon—the sun vanished again, and did not honor them with his smiles for four months more. At twelve o'clock for two or three weeks there was considerable twilight, but this was soon lost, when for three months the twilight was very inconsiderable. The moonlight days and nights were beautifully bright. The winter was remarkable for being one of the severest and the longest in darkness ever experienced by civilized man. When the cold began to increase it was ten degrees below zero early in September, and as the season increased, although it proved to be a much milder winter than many described by the natives, 48 and 50, and even 60 degrees below zero was recorded. Early in November, if not on the last of October, at a temperature of 40 degrees below zero, old Monongahela whiskey, so famous for its strength, was converted into ice.

The winter was passed in amusement and rest. As early as the middle of March, expeditions began to be fitted out to explore the country about.

These were made by the aid of dogs and sledges. One of these parties examined a large glacier about 80 miles distant. The extremity of this glacier was the most northerly limit of the field of search. Beyond this glacier the land altered its trend, it having trended from the vicinity of Stafford's Head about east, nearer east than north. Beyond this it trended again to the north, and when the whole bay was frozen up, from a short distance north of this glacier was discovered a channel of open water running north and south. In and along this stream were innumerable cetacia and birds. The principal food of the travellers over the ice was procured by the rifle: it consisted almost exclusively of the pemmican.

With reference to the channel above described it is for those conversant with geographical theories and principles to determine whether or not it is an indication of any highway of water beyond, or whether it is merely one of those tide streams which sometimes break the frozen surface of a northern estuary, known to the Danes as a race. Whatever this is, one thing is certain; if it be the basis of a line of coast presenting something unchangeable—something fixed, whether it be the water or ice on which to travel—that feature alone makes this apparently the most eligible road to the North Pole.

Early in the spring the Newfoundland dogs were exceedingly useful in carrying burdens; they were indeed invaluable for short excursions; six of them would draw a burden varying from five hundred to eight hundred pounds, at a dog-trot of four miles an hour. They would travel thirty miles a day for several days in succession. These dogs, however, were not adapted for this climate, and the first winter only two of them survived. Most of them died of convulsions, apparently suffering from lock-jaw.

In the month of March the vessel was most unexpectedly visited by a party of Esquimaux. They came in sledges, drawn by fine large dogs, evidently of a very superior breed; these dogs would make a journey of 60 miles a day for several weeks, carrying a single man, and in some instances two men behind them. The sledges were curiously formed; some were made of hundreds of pieces of bone lashed together with strings made of the oisook, a large seal. A few of them were made of wood. These Esquimaux are represented as grossly filthy in their habits and loose in their morals, live as much on raw as on cooked meat, and eat most voraciously. But the race is fast passing away, and it is supposed that there are not more than 100 of them between Cape York and Littleton Island, a distance of five or six hundred miles.

In July, as the prospect of getting out of the ice seemed to be very distant, Dr. Kane planned a party, of which he took the command, to Beechy Island, to communicate with the English. He met the ice off Cape Parry—evidently the Upale and Walstenholm sound pack—at Jones's sound. It was impossible to penetrate this, and consequently nothing remained but to make preparations for passing the second winter as comfortably as possible. The outfit of the expedition had contemplated a stay of only fifteen months, and the provisions remaining were not of a character suited to the climate. Scurvy prevailed considerably, but by the untiring assiduity of Dr. Kane, this was so far checked that no lives were lost by it, although several men were severely affected. By this time the supply of coal was entirely exhausted. They were obliged to cut away the bulwarks and all the spare spars of the ship; indeed everything which could be cut away, and still leave them in seaworthy condition, in order to keep up their small fire.

When the crepusculum began to show the tints of the sunlight in the spring, they began to look forward to all that remained to them—a journey to the nearest station of civilization, Upernavik. The distance, including detours, was at least a thousand miles. This could only be travelled by conveying the boats on sledges to the nearest water, and then placing the sledges on the boats and proceeding by water until the ice compelled them to reverse the order again. The winter was an extremely cold one. Sixty degrees below zero was frequently recorded, and the monthly averages were 30 and 40 degrees below zero. The ice showed no prospect of breaking up. Careful surveys were made as late as the first of May, when the water was at least 70 or 80 miles from the ship. It being beyond question that the ship must remain there, the boats were got under weigh, and the greatest speed used in fitting them up.

As soon as the boats were ready provisions were placed in them, water-proof articles being got up as well as their shabby resources allowed. The bread was pounded into powder, packed into canvass bags, and laid down so as to fill up the space between the thwarts of the boat, just room enough remaining for the legs of the oarsmen. There were three boats, one of which (the Dingy) was soon broken up for fuel. Two buffalo robes, a few blankets and a tarpaulin, composed the sleeping accommodations of the party. They had eighty miles to go upon the ice, but as their party were weak, both in numbers and in health, they were obliged to take one boat at a time. The hummocks in the ice were often three or four feet high, and the eighty miles were traversed by many of the party several times over. The ship was left about the 20th of May, and they were a month in traversing the eighty miles of ice. In one single day, after launching their boats, they made, by a splendid sail, almost as much as they had during the month previous.

Passing Sutherland Island, they came withing 10 miles of Hakysluyt Island, where they were obstructed by ice. The next day, however, the ice opened with the tide, and they reached that island. Here they were compelled to stop for two or three days by the ice. They then went on the Dallymple rock, where they were delighted to find thousands of fresh laid eggs of the eider duck. They were detained there by a south-west wind for a week, during which time they lived almost entirely on eggs. They then packed down a thousand, and sailed for Natilick, an Esquimaux settlement. They met little obstruction from the ice, and when they did they were generally delayed only until the next tide.

At last they were gratified and delighted at the sight of Cape Dudley Diggs, which is well known to the whalers. From there they ran on until they met the ice off the great glacier, a little north of Cape York. Here they were detained by the ice for a week, but as their quarters were near an immense coonery, where countless thousands of birds kept up a continual cawing, and they were able to shoot as many as they pleased, they were not very impatient. Each man ate one or two of them at a meal, and they made up for lost time. At last the ice released them, and without very much obstruction they arrived at Cape York about the middle of July. During the passage they lived principally on the little ank, with which, for miles and miles north of Cape York, the air is continually darkened. Rounding Cape York, they passed into Melville Bay.

Pushing boldly on, sometimes venturing even into the pack ice, they came successively to the Devil's Thumb, Horse Heart Promontory, and finally to Upernavik, where they were received with great joy by the whole village. Here they found a Danish bark bound to England, the Mary Ann, Capt. Anderson; in her they embarked. They arrived at Lively on the 10th of September, where, after remaining a week, Lieut. Harstein arrived, and their joy was complete.

Three of Kane's party, seamen, died from exposure. The remainder were more or less frost bitten. No traces were discovered of Sir John Franklin and his party. The party has returned in excellent health, and all hands have grown quite stout and fleshy.

How to Eat Grapes.—The *Water-Cure Journal*—pretty good authority in such matters—says few people know how to eat grapes. Some swallow pulp, seeds and skin; others swallow *only* the pulp, ejecting both seeds and skin.

In a conversation with Dr. Underhill on this subject, he advised that it would be well to observe the following rules, namely: When in health, to swallow *only* the pulp—when the bowels are costive, and you wish to relax them, swallow the seeds with the pulp, ejecting the skins. When you wish to check a too relaxed state of the bowels, swallow the pulp with the skins, ejecting the seeds. Thus may the grape be used as a medicine, while, at the same time, it serves as a luxury, unsurpassed by any other cultivated fruit.

A man or woman may eat from two to four pounds of *ripe* grapes per day with benefit. It is well to take them with or immediately after your regular meals.

A PLEA FOR HORSES.

We have a word to offer to our farming friends who employ horses as their chief draught animals. The horse of all animals is one of the most sensitive to sudden changes of temperature, and to impure air or want of cleanliness. We speak from observation, when we say that not half the stables in the country are, at this season of the year, kept in a fit condition to be occupied by horses, even while put in about an hour for the noon feeding.

The droppings of horses, both liquid and solid, are among the most quickly fermenting, easily decomposed manures. In warm weather the work of decay commences immediately, and in a very few days one-half or more of the weight goes off in a gaseous form. This keeps the air constantly loaded with noxious, unhealthy matters, which are just as deleterious to the health and vigor of horses as to those of men. During the busy season of harvest and seeding, cleaning stables is scarcely ever attended to regularly. The animals generally occupy them a short time in the morning, at noon, and perhaps in the evening for graining, but the stables lie untouched for days or weeks—we have seen them lie thus for months. The horse is tied up for an hour's feeding and rest in the heat of the day, but instead of standing in a cool, sweet, well ventilated stable, ten chances to one, he stands sweating and panting, with scarcely a breath of air which is not literally loaded with the fumes of his own decaying excrements, and he goes forth tired and debilitated instead of refreshed, to undergo the severe toils of drawing the plow during the sultry hours of the afternoon.

The remedy for this is very simple. If the stalls do not have a free circulation of air, let a board or two be knocked off in front or on the sides at the head of the stalls; they can be easily replaced when cold weather comes on. Let some such plan be adopted, and in every case let the stables be made as cool and airy as possible.

Let all excrements, however small in quantity, be removed at least once a day, and by all means keep the floor well sprinkled with some deodorizing material. A weak solution of sulphuric or muriatic acid is excellent for this purpose; but these are often inconvenient and troublesome, even if readily obtained. Plaster of Paris (gypsum or sulphate of lime) is very good; common salt is also good. Each of these substances increases the value of the manure more than its cost. Dry straw and muck are also very valuable for the same reason.

We have frequently known lime and ashes recommended for this, but these rapidly decompose the manure, and greatly diminish its value for applying to crops, and they should never be used unless with muck, or with long manure which is to be immediately covered in the soil. These may seem trifling considerations, but they are really of great importance.

As before stated, horses take cold very easily. On this account they should never be turned from a warm stall, where they have perspired for an hour, directly into a wet damp pasture. A horse should never be compelled to lie down over night in a wet, unsheltered pasture. Let them always have a dry plot, or what is better, a shed or stable to retire to when they have completed their evening grazing, especially if there be heavy dews, fogs or rain. A horse will never lie in an open field when a sheltered spot is accessible. Every one must have observed that they always seek the driest spot to be found, and generally lie near a fence, shed or tree. —ORANGE JUDD, *in N. Y. Times.*

FARMERS' FESTIVAL AT AMHERST.

The Hampshire County Agricultural Society held its Annual Show at Amherst, on Wednesday and Thursday, October 10th and 11th. The weather was pleasant, and great numbers from all parts of the county attended, and what was especially gratifying, the wives and daughters, not only of the farmers, but of the mechanics, merchants, lawyers, physicians, clergymen and literary men, were there, and enjoying the festivities of the occasion with as much relish as those who had the fat oxen and noble horses, or those who made the butter and cheese. Like most of the western Societies, in some respects their exhibition was better than we can show here. In the exhibition of fruits, they are far behind Essex, Middlesex, Norfolk and Worcester counties, but in the articles of butter and cheese, they entirely outstrip all these counties, with the exception, perhaps, of Worcester.

There can be no comparison between their fat, or working cattle, and ours, as they raise their own, often selling the best to be taken away, while most of ours are selected from the finest which can be found in the western part of this State, and from New Hampshire and Vermont. So it is in a considerable degree with the horses,—though in the latter they are able, at any time, to make a fine display of young animals. There were some very fine cattle presented by Messrs. Alfred Baker, of Amherst, Horace Russell, of North Hadley, Frary Field, of Leverett, H. N. Rust, of South Deerfield, Luke Sweetser, of Amherst, H. Hunt, of New Salem, A. J. Cadwell, Hubbard Graves and Austin Russell, of Sunderland, O. Richardson, of Granby, and others whose names we did not obtain. The town of Leverett sent in a string of working oxen numbering 53 yoke, and Hadley, 24 yoke, which were a credit to their towns, and these made quite an attractive feature of the show. Pigs and Poultry were not numerous, or in any way remarkable, but the show of Sheep was fine, and included choice varieties.

The exhibition of fruits was creditable, there being fine specimens of most of the common varieties. But fruit-raising in that part of the State has not been entered into much as a matter of business, so that if our friends wish to see a display of fine fruits, and in great variety, they must visit some of our exhibitions nearer the sea-board, where *interest*, as well as *taste*, has prompted the cultivator to reach the highest perfection in the art.

The *Butter* and *Cheese* presented were in quite large quantity and of the best quality; we have seen nothing to equal it, except at the Berkshire Show at Pittsfield.

The address was by CHARLES L. FLINT, Esq., Secretary of the State Board of Agriculture, was an excellent one, and we are happy to present the opinion of it given by the editor of the *Amherst Express:*

The orator began with an allusion to the objects and advantages of such a gathering, regarding the day as eminently a social occasion, a day of relaxation as well as improvement, and any subject of an abstruse or scientific character requiring a close and wearisome attention as out of place. He gave a brief sketch of the progress of farming in ancient and modern times, drawing a picture of a Greek farm house twenty-five centuries ago, including the appearance of the farm, the stock and the tools, making a few extracts from the maxims of the Greek and Roman agricultural writers, and then stated briefly the progress which had been made in England and other countries. The troubles and trials of the early farmers of Massachusetts were then alluded to, and many curious facts stated with regard to the farming of the Indians. After the revolution, the necessity of associated effort began to be felt, and the Massachusetts society was established in 1792. The prejudices which the county societies met were very great. The Berkshire society, during the second year of its existence, being greatly embarrassed for want of funds, wrote to the State society for aid, and received from its president, John Adams, this significant reply:

"*Quincy, Sept.* 16, 1812.

"You will get no aid from Boston. Commerce, literature, theology, are all against you; nay, medicine, history, and university and universal politics might be added. I cannot, I will not be more explicit."

These prejudices had gradually worn away and the societies had accomplished a good work. But some other organization was needed to meet the wants of the inquiring and thinking minds which now form so large a part of the community.

The importance of a Farmers' Club in every town and every village of the State was dwelt upon at considerable length, showing their tendency to promote the best social feelings, and increase the intercourse among farmers, too often isolated from each other or separated by prejudices, as much as if an ocean rolled between them. It would bring mind and thought to bear on the development of our true home policy. The moment we bring mind to bear on the toils of the land, that moment we dignify and ennoble them. Mind is the only thing that distinguishes the toils of man from the toils of the brute, and those occupations which neither require nor admit of the exercise of mind and thought descend to the level of mere brute force.

The management of such a club was illustrated by a supposed discussion on the adaptation and profit of flax, in which many important facts with regard to this crop were given.

The address closed with the importance of educating farmers for their profession and making farming attractive to the young.

During the delivery of the address the church was crowded, and the close attention of the audience evinced the satisfaction with which it was received.

The highest gratification which we found, was not in the noble horses, fat beeves, milch kine, pigs, poultry, or vegetables, but in the expression of a sentiment fast increasing in the rural population. A great many people have discarded the belief that labor is an evil, and that there is no enjoyment in the occupation that earns the bread we eat and the delightful homes we occupy. After looking at all the departments of the exhibition, we were so fortunate as to be introduced to several of the women of Hampshire county, and in their expressions of attachment to rural life, and of the happy influences of rural occupations upon themselves and their children, we found a source of gratification far exceeding that which any other matter afforded. They feel that in the calm and rational pursuits of agriculture and its kindred branches, horticulture and arboriculture, there is less excitement of the passions, less temptation to lure from the paths of virtue, and a constantly ennobling influence that lifts the soul through nature up to nature's God. That God is daguerrotyped, as it were, before us all; that we see his wisdom and love, in the bending grass, the trembling leaf, the sparkling dew, and in a thousand wonderful operations constantly carried on by His superintending care, and which are ever present to him who cultivates the soil. That there are lessons of trust, of confidence, of submission to be found in the garden and field in many different forms; that wisdom may be found in every flower that blooms, or insect that lives; that there are

> "Tongues in trees, books in the running brooks,
> Sermons in stones, and good in everything."

Such sentiments are gaining ground, and as they are received, will the farm-house become embellished with books, with shade trees, with climbing plants and flowers, and contented hearts, and the home of the farmer become the happiest of all in our land.

So the Hampshire Show was a successful one, because it was constructed upon principles which will make men better and happier—a rational *Holiday*, which should be kept pure from all distracting influences of whatever name.

Our thanks are due Mr. DICKINSON, the President, and Mr. BOYDEN, the Secretary, for kind attentions.

WALKING ON RED-HOT IRON PLATES.—Prof. Pepper recently delivered a lecture in the Pyrotechnic Institute, London, before a large audience of mechanics, in which he remarked that the setting of the Thames on fire was no longer a joke; but a reality. By dashing a small bottle of sulphuric ether, with a few particles of metal potassium, into a flat cistern, a bright flame was produced, which illuminated the whole place. He then laid down four plates of red-hot iron on four bricks, and one of his attendants walked over them barefooted, without any injury. By wetting his fingers in ammonia, the Professor dipped them into a crucible of melted lead, and let the metal run off in the shape of bullets into a shallow cistern of water.

THE TILLER OF THE SOIL.

BY DAVID L. ROATH.

A hardy, sun-burnt man is he,
  A hardy, sun-burnt man;
No sturdier man you'll ever see,
  Though all the world you scan.
In summer's heat, in winter's cold,
  You'll find him at his toil:
O, far above the knights of old,
  Is the tiller of the soil.

No weighty bars secure his door,
  No ditch is dug around;
His walls no cannon bristle o'er,
  No dead lie on his ground.
A peaceful laborer is he,
  Unknown in earth's turmoil:
From many crushing sorrows free,
  Is the tiller of the soil.

His stacks are seen on every side,
  His barns are filled with grain;
Though others hail not fortune's tide,
  He labors not in vain.
The land gives up its rich increase,
  The sweet reward of toil,
And blest with happiness and peace,
  Is the tiller of the soil.

He trudges out at break of day,
  And takes his way along,
And as he turns the yielding clay,
  He sings a joyful song.
He is no dull, unhappy wight,
  Bound in misfortune's coil;
The smile is bright, the heart is light,
  Of the tiller of the soil.

And when the orb of day has crowned
  With gold the western sky,
Before his dwelling he is found,
  With cheerful faces by—
With little laughing duplicates,
  Caresses will not spoil;
O, joy at every tide awaits
  The tiller of the soil.

A hardy, sun-burnt man is he,
  A hardy, sun-burnt man;
But who can boast a hand so free,
  As he, the tiller, can?
No summer's heat, no winter's cold,
  The power has him to foil;
O, far above the knights of old
  Is the tiller of the soil!

ASHES IN AGRICULTURE.

Wood ashes is one of the most important fertilizers. It is easily obtained in any quantity, and at little or no expense. Take them carefully from your hearths and save them until your corn and potatoes have arisen two or three inches from the ground, and then take a basket on your arm, and from it take a small handful of ashes, and cast it at the root of your plants, and hoe them soon, so as to cover the ashes.

Ashes contain all the inorganic substance of the wood or plants which are consumed; part of these are soluble and part insoluble. Thus dissolved, potash will dissolve silica and prepare it for glazing the stalks of cane, corn, wheat, &c.

Not a particle of ashes should go to waste. Leached ashes has parted with most of its potash, but it still retains its phosphoric acid and most of its lime. Ashes neutralize acids in the soil; they warm cold, messy, wet places; they are very destructive to insects; they assist to break down and dissolve the coarse fibres and stalks in compost heaps; and render hard, clayey soils, open loamy and fertile.

The potash, so material to most crops, can be obtained here, only from ashes. In granite regions, potash is obtained from the dissolution of the feldspar, but we have none in this region of country.

Wheat contains a large proportion of potash. Fifty-nine per cent of the ash of corn is carbonate of potash, one half of the earthy part of Irish potatoes is pure potash.

Save your ashes, therefore, as carefully as you do your five and ten cent pieces, apply them to your crops with care, and you will find them of a rich, deep green color while growing, and heavy with nutriment at harvest.—*Ancient City.*

For the New England Farmer.

DIGNITY OF TOIL.

Mr. Editor:—When Lycurgus, ruler of Laconia, made an equal division of land, and destroyed commerce by the introduction of an almost valueless currency, he performed an act bold and novel beyond all precedent, requiring unlimited authority for its performance. And he acted from wise motives, for Sparta was a small country, surrounded by warlike nations, and he hoped by suppressing all wealth and luxury, to be able to maintain its independence. But he made one great mistake—he destroyed the dignity of labor, for the work of tilling the soil was performed by "helots" or slaves, consisting of prisoners taken in war, and their descendants, who were treated with great rigor, while they, (the Spartans,) spent most of their time in military exercises; and subsequent to the death of Lycurgus they became luxurious and effeminate, and were swallowed up in the Roman vortex.

The Romans, in the early ages of their history, were a virtuous and industrious nation, who paid great attention to agriculture, the land being owned chiefly in small parcels; each proprietor cultivated his farm with his own labor. And so long as their great men were called from the plow to the senate and the tribunal, did they increase in popularity. But when the nation had waxed mighty, had fought many wars and conquered many nations, then slave labor was almost universally adopted: not only in agriculture and the mechanic arts, but also in nearly all of the professions, slaves were to be found. Consequently it became a disgrace for a free citizen to labor—they became effeminate and dissolute. In their amusements they showed a depraved taste; amphitheatres were erected at vast expense; lions, tigers, elephants, alligators and other ferocious beasts, were brought from various parts of the world, in order that the Roman populace might have the pleasure of seeing them devour unhappy criminals; and slaves for various offences, most particularly for any attempt to gain their liberty, were punished by being thrown to wild beasts. At last the nation became so effeminate, that the army which had been the terror of the world, and was in the early ages of her existence composed of the flower of her youth, was ruined by the introduction of many foreign legions. It is the commonly received opinion that Rome was conquered by vast hordes of barbarians from the North, but it will easily be seen that slavery was the conqueror, for if the Romans had remained a free, virtuous and industrious people, they could have withstood all the world. E. N.

South Hadley, Sept., 1855.

For the New England Farmer.

GRAVEL WALLS.

Mr. Editor:—The subject of mortar is extensive, and at best but a mere glance of it can now be taken, yet its importance is so great, in this mode of building especially, that it cannot be passed over too hastily.

Shaw, in one of his works on Architecture, says: "The characteristic of all modern artists, builders among the rest, seems to be to spare their time and labor as much as possible, and to increase the quantity of the article they produce, without much regard to goodness, and perhaps there is no manufacture in which this is so remarkably exemplified as in the preparation of *common mortar.*"

There is a work on mortars, now out of print, but which should be in print, and in the possession of all builders and persons about to build, which is the result of extensive research, and the patient practical experiments of Lieut. Wm. H. Wright, of the U. S. corps of Engineers, while engaged on the public works in Boston harbor. The following directions for preparing mortar and concrete, are gleaned from the mass, and partly in the language of the book. He says, sand performs no chemical part in mortar, but is entirely passive in its influence; it appears rather to diminish the adhesiveness or tenacity of the limes, and though it may often add to their resistance, is employed chiefly for reasons of economy. It is useful, however, as an ingredient of mortar, in some other respects; it moderates the shrinkage of the cementing matter, making it uniform, and preventing cracks; probably facilitates desiccation, and makes the induration more rapid. Sand diminishes the strength of *hydraulic cement* in every respect, whether we regard tenacity, resistance, or the property of setting under water; though a mixture of cement and sand for stucco and pointing mortar is better than pure cement, as being less liable to crack, and therefore more durable when exposed to the sun in hot weather. In general, a moderate portion of sand is mingled with cement, for the sake of economy, except in peculiar circumstances, on very important works.

Sand containing soft earthy matter, should be rejected for mortar, or if retained should be washed. Its presence is easily detected by its soiling the hand.

A suitable proportion of sand or fine gravel, by filling the void spaces in the lime paste, and by the adhesion of its particles to the lime, is important in point of economy, as it is the least expensive ingredient. A very important part in mortar-making, then, is to know what is the smallest amount of cementing matter admissible in its preparation. The cheapest, and only allowable combination, *is the filling of the void spaces of the sand.* To ascertain the void spaces, *fill* a vessel of known capacity, with dry silicious sand, and after shaking it compactly, add water until it appears on the surface, the quantity of water is the measure of void spaces of the sand. The rate recommended by Lieut. Wright for proportions, is, to twelve measures of *coarse* dense sand, five of the cementing ingredients in paste somewhat firmer than properly tempered mortar. To five measures of *middling* sand, two of the cement; to three measures of *fine* sand, one measure of the cement. A cask of stone lime weighing 240 lbs., net, will produce 8 cubic feet of stiff paste, and will admit of sixteen bushels damp loose sand; and the lime paste should become cold before the sand is added.

From the extended quotations and remarks on the adhesive mixture for gravel or concrete buildings, it is apparent that the true principles of mortar-making should be applied to those, of all other buildings.

Bricks are porous, and the carbonic acid of the atmosphere, small as it is, being only one part in one hundred, will in time reach the mortar to a considerable depth from the surface. The unavoidable interstices in the concrete, admit also the atmosphere, and besides, the walls may be ventilated from bottom to top at intervals of a few feet by moveable tubes, round or square, to draw up as the work advances. The ventilators serve to harden the mortar at these points, and rapidly strengthen the wall.

Of the buildings erected in this vicinity of concrete, the majority stand, and it is much to be hoped they will stand to a remarkable old age. Others have fallen, and of those fallen an examination shows that the stones and particles of gravel were little more than *whitewashed*, without an approximation of adhesive mixtures to bind the particles together.

Of those concrete buildings which have fallen, one at Lexington was built on a wet site. The basement was some of the time under water, and upon a foundation of *lime* concrete. The design was, one story above the basement, and the thickness of the wall one foot. But it was carried up two or three stories. While the frost remained it stood, and when it came out it fell. One at Lynn, 2½ stories, was placed on a stone foundation, supposed to be good excepting the lack of a thorough coating of hydraulic cement above the underpinning, on which the concrete should be placed, to prevent the attraction of dampness from the ground,—a precaution needful to a brick or stone building as well as to one of concrete. It was thought by the owner that the foundation started, and with it the whole edifice came to the ground, filling the air with a perfect cloud of lime powder. It was built of gravel and smooth cobble, without the coarser rubble stones, and probably nearly destitute of such a preparation of mortar as is requisite to hold brick and stone and gravel together.

Lieut. Wright says "that the French beton and English concrete are used for similar purposes. Beton or concrete is nothing more than *a mortar*, to which *are added* coarser materials than are found in sand. The materials proper for use in the manufacture of concrete, are hydraulic lime or cement, sand, stone broken into small fragments, broken bricks, gravel, shells, and the like. The coarser ingredients *are added to the mortar of sand and cementing matter*, with a view of giving hardness and incompressibility, and of lessening cost—and this cost is reduced to the utmost by the use of fragments of various sizes, and sometimes by a certain proportion of gravel, in order to make the sum of the voids as small as possible. Of the materials employed at Fort Warren, brick fragments have usually been preferred as affording the best results. The proportion of cementing matter should always be such as to form good mortar, with the sand alone; and the mortar, thus composed, must always be added to the solid particles, in the least sufficient quantity to fill up the voids. This, however, would be the minimum of mortar, and would rarely produce a good result. An excess over this amount has been always used in the composition of concrete at the public works in Boston harbor.

The concrete for the sea-wall at Lovell's Island was prepared by mingling mortar of hydraulic cement and sand, and a shingle or gravel of slaty texture. This gravel consisted of all sizes, from the bigness of a pea to stones of six inches in diameter, so proportioned as to fill the void spaces. A batch of mortar was composed as follows: 1 cask cement, equal to 3¾ cubic feet stiff paste; 10¼ cubic feet damp loose sand, equal to 8 cubic feet dense sand. One-half of the sand was put into a box and spread out, then a cask of cement, and over this was spread the remainder of the sand. Water was then added, sufficient to produce a somewhat pliant mixture, and then mixed in the usual way. The result was 10¼ cubic feet of quite stiff mortar. This batch was mixed with 31½ cubic feet of gravel, the void spaces of which were estimated at 20 to 25 per cent. of its volume. The minimum of mortar would be between 7 and 8 cubic feet, but two more feet were allowed to compensate for imperfection in the manipulation. The concrete was prepared by spreading out the gravel on a platform, in a layer from 8 to 12 inches thick, the smaller pebbles on the bottom and the larger on the top, afterwards spreading the mortar over it as uniformly as possible. The materials were then mixed by four men, two with shovels and two with hoes, the former facing each other, and always working from the outside of the heap to the centre, then stepping back and recommencing in the same way, and thus continuing the operation until the whole mass was turned. Then men with hoes worked, each, in conjunction with a shoveller, and were required to *rub well into the mortar* each shovel full, as it was turned and spread, or rather scattered on the platform by a jerking motion. The heap was turned over a *second time*, in the same manner, but in an opposite direction, and the ingredients were thus thoroughly incorporated, the surface of *every pebble* being well covered with *mortar*.

Two turnings usually sufficed to make the mixture complete, and the resulting mass of concrete (33¼ cubic feet) was then ready for transportation to the foundation. The concrete was taken to the foundation, levelled and rammed. The rammer was a cylinder of wood 8 inches in diameter and 8 inches high, and its base was faced with sheet iron, and furnished with a handle 3 to 4 feet in length.

There was prepared a quantity of mortar, with 8 cubic feet of stiff lime paste, 11¾ stiff cement paste, and 42 cubic feet of damp and loose sand, equal to 32 cubic feet of close sand. The products amounting, as our author says, to 40 cubic feet of stiff mortar. Of this mortar ⅓ of the batch was used in making concrete—say 13⅓ cubic feet of mortar, 22½ cubic feet of granite fragments, and 11¼ cubic feet of gravel, making 33¾ cubic feet of stony material. In the preparation of this batch the gravel was first mixed with a portion of the mortar, and when well incorporated, the mass was spread out, over which were then spread the granite fragments, and afterwards, the remainder of the mortar. The whole was then worked thoroughly, and produced 38¼ cubic feet of concrete. The gravel consisted of various sizes, from that of a pea to that of a small hen's-egg, and the fragments of granite were broken to about the size of a hen's-egg. This concrete was placed in a very dry situation. But if it was placed below ground, I am convinced that the pot lime should have been omitted. The cost of this concrete was $2,62½ per cubic yard.

After the thorough and critical experiments of our author, he illustrates the economy of using concrete, by giving a table of the cost of masonry at Fort Warren.

Rubbled masonry, *dry*, costs per cubic yard, about	$3,00
Rubbled masonry laid in mortar, - - - - -	$4,25
Brick masonry per cubic yard, - - - - -	$6,25
Facing stone, sea-wall beds and joints hammered, -	$9,00
Concrete, least costly kind a little over - - -	$2,00
Concrete, most costly kind a little over - - -	$3,50

In this compend of Lieut. Wright's valuable book, justice is not and cannot be done him; a newspaper article being too limited. If the work was to be obtained of the publishers or the trade, I should have referred your readers to it for ample information on the subject of which it treats.

Waltham, 1855. W. H. K.

For the New England Farmer.

PLUM ROT.

Friend Brown:—As the rain pours—and every body is thankful, or should be, after a long drought—I look out upon my plum trees near the windows, at the same time taking up the *N. E. Farmer* to read again. I notice particularly the "Extracts and Replies," and only wish that I had inquired, too, why my plums rot upon the trees, just as they had attained their natural size and beauty, and look as if ripe. How disappointed! After having spent so much time, money and labor to have trees laden with *unripe* fruit, promising a full harvest in the end, attacked with the "plum rot," every one of them of the "same sort," not even a "few left." This is one trouble. And here is another. Look at the Isabella grapes—Jack Frost did it all—we know who did this, and do not inquire. But a few days more, and I should have had my heart's desire, ripe grapes. In looking over the "Extracts and Replies," I must confess that I smile at others' troubles; (misery loves company, you know.) For here is one Mr. A., who says, "I wish to inquire," &c; Mr. B. says, "I am much troubled," &c.; Mr. C. says "Will you inform me," &c. Now, all I want to know is—though I would like to know what Mr. A., B. and C. want to know—what is the cause and preventive of "*my* plum rot." But no grumbling—while I have gangrenous plums, I have pears fully ripe—though Jack Frost claims my Isabellas, my Dianas are left, and I like them best—so no grumbling, it's all right.

Plums and Grapes.

Manchester, N. H., 1855.

For the New England Farmer.

HOPS—INQUIRIES ABOUT.

Mr. Editor:—From a child I have been accustomed to experimental farming on a slope of one of the Green Mountain ranges. Perceiving and sensibly feeling my inefficiency, with the hope of obtaining some idea of what is termed its theory, I some time since, commenced as a reader and also a subscriber to the *New England Farmer*.

To the agriculturist, a knowledge of its theory may be of about as much consequence, as that of physic to the physician. Both are made available, when accompanied with a corresponding share of good sound common sense; necessary in the varied aspects and different developments of the same, and also of different diseases.

I ask my brother farmers if in too many instances, our sickly soils do not denote that their attendant physician has been a mere quack? Why is it that so many of our brethren are obliged unremittingly to toil, from "early dawn to evening's shade," until they are physically and intellectually more feeble than the soil they cultivate, in order to make the "strap and buckle come together at the end of the year," quoting from my good old neighbor, Economy?

While I hail the weekly arrival of the *New England Farmer*, I lament that those whose organ or mouth-piece it should be, should compel individuals in the learned professions, and perhaps some gentleman farmer, to do so much of the talking. I believe, however, that my brother farmers do go to the editor with some of their more difficult questions. I propose a simple suggestion, and a question or two. Will experimenters in the soil be more particular in stating the nature, formation, and locality of their soil, as well as its treatment and results?

The deacons and laymen in agriculture, if not the priests of this vicinity, are making almost one simultaneous rush into the hop-growing business. Now in this place we sail in small boats, and have to guard against an approaching storm, that we may see ourselves safely in harbor.

I wish to inquire, first, has art or discovery devoted the use of the hop to any purpose that it was not used for ten years ago?

What has been the average price of hops for fifteen years past? What, with the best information for judging, might be considered a safe estimate for the same time to come?

Is the price of the article any more fluctuating than that of other staple farming products of New England? S. P. J.

Waitsfield, Vt., 1855.

Massachusetts Horticultural Society.—The following officers have been chosen for the ensuing year, commencing on the first Saturday of 1856:

President—Joseph S. Cabot.

Vice Presidents—Benjamin V. French, Cheever Newhall, Edward M. Richards, Josiah Stickney.

Treasurer—William R. Austin.

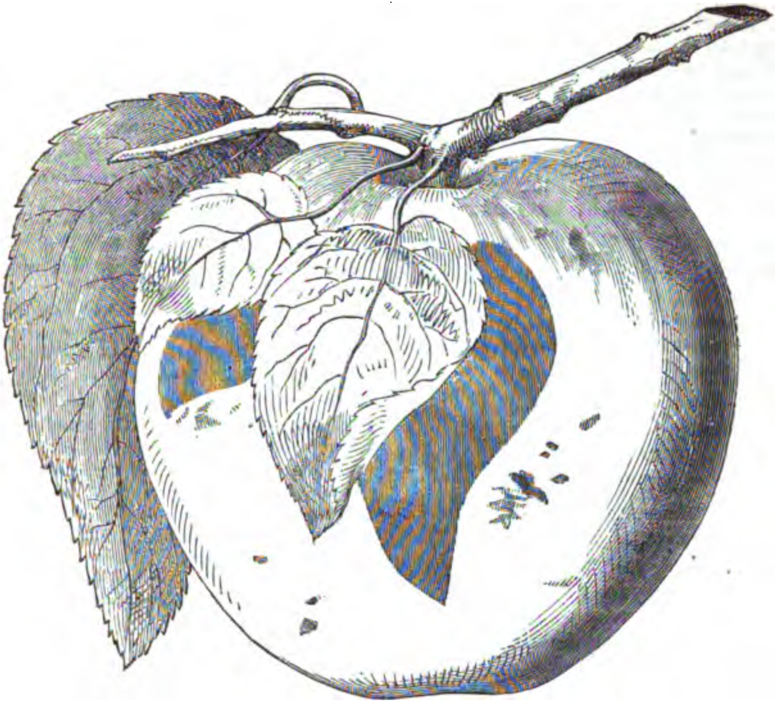
Corresponding Secretary—Eben Wight.

Recording Secretary—W. C. Strong.

Professor of Botany and Vegetable Physiology—John Lewis Russell.

Professor of Entomology—T. W. Harris, M. D.

Professor of Horticultural Chemistry—E. N. Horsford.



EARLY SWEET BOUGH APPLE.

SWEET HARVEST—AUGUST SWEETING—YELLOW BOUGH.

Fruit nearly round, sometimes a little longer on one side than on the other, and in size from medium to large. Skin smooth, taking a damp, sticky polish. Color, greenish-yellow, with a pale dull blush on one side, spotted with small dark brown spots and little patches of russet. Stalk, short and slender, rarely extending close to the level of the ridge of the cavity in which it is set, which is deep and cylindrical. Flesh, white, tender and sweet; neither *very* rich nor juicy, but very pleasant to the taste; when over-ripe it becomes rather dry and mealy. Calyx, narrow and deep, extending tube-like into the heart of the fruit. Ripens in August in Massachusetts; is hardy, bears well in light soils, and COLE says is the "best early sweet apple known." It is too sweet for pies or sauce, but is an excellent baking or table apple.

The apple from which the above engraving was sketched grew in the fine garden of our fellow-townsman, W. W. WHEILDON, Esq. Mr. W., though engaged in conducting a newspaper and printing-house, finds time to direct the affairs of one of the finest gardens in our neighborhood, and to cultivate many varieties of the best fruits and flowers. He will please accept our thanks for this and other specimens of fruits, which we have had sketched, and shall present at some future time.

For the New England Farmer.

FINE SQUASHES.

I saw at the Exhibition in Haverhill, six squashes of the crook-necked variety, said to weigh on an average 30 lbs., as handsome as any squashes I have ever seen. I learn that their meat was fine grain and superior for cooking. I had the curiosity to inquire of Mr. D. Buxton, Jr., of S. Danvers, who presented them, how they were reared. He said these, with others to the amount of 400 lbs., as he judged, all grew on two vines. They grew in one corner of his onion field, with no other extra attention, except one bushel of good manure in the hill. They were all thus planted, and all the plants in the hill except the one most vigorous were taken out. Care was taken to keep the bugs away, and the product was at least 200 lbs. to a hill—worth at lowest estimate, one cent per lb.—all this on a space not exceeding one rod of land. This shows what can be done by careful cultivation. So great was the admiration of these squashes, that Mr. B. left them in the keeping of the door-keeper at the Hall, that Haverhill might have the benefit of the seed. P.

S. Danvers, Oct., 1855.

FACTS FOR FARMERS.

The following hints, for a wonder, appear to be, without exception, good:

"Never keep your cattle short; few farmers can afford it. If you starve them they will starve you.

It will not do to hoe a great field for a little crop, or to mow twenty acres for five loads of hay. Enrich the land and it will pay you for it. Better farm thirty acres well, than fifty acres by halves.

In dry pastures, dig for water on the brow of a hill. Springs are more frequently at the surface on a height, than in a vale.

The foot of the owner is the best manure for his land.

Cut bushes that you wish to destroy in summer, and with a sharp instrument; they will then bleed freely and die.

When an implement is no longer wanted for the season, if you carefully lay it aside, you will have it in good order for use next season.

Cultivate your heart aright, as well as your soil, remembering that 'whatsoever a man soweth, that shall he also reap.'

Build a spacious barn when you have learned to raise a crop to fill it,—and not before.

Keep notes of remarkable events on the farm.—To record your errors even will be of benefit.

Good fences make good neighbors.

The better animals can be fed, and the more comfortable they can be kept, the more profitable they are.

Clover sowed deep, is secured against a drought—cows fed well in winter give more milk in summer, and what ought to be done should be done to-day, for to-morrow it may rain.

You may laugh at this advice if you think proper."

OAT MEAL AND THE INTELLECT.

At the annual meeting of the American Association for the Advancement of Education, recently held in this city, Prof. Haldeman advocated the use of high phosphorized food for teachers, they having much expenditure of brain. He said "the reason why the Scotch were so intellectually acute and active must be attributed to the use of *oatmeal* in their youth. Oats contain more phosphorus than any other vegetable." He also recommended eggs as excellent food for teachers, in order to increase their intellectual capacities. But the mental acuteness and general intellectual strength which characterize the people of the above-named country cannot be due to the phosphorus of their oatmeal, which is their common breakfast food, for it so happens that wheat contains more of it than oats. The quantity of soluble phosphates in wheat, according to Prof. Johnston—himself a Scotchman—is more than one per cent. greater than in oats. In his work on Agricultural Chemistry, pages 503 and 510, the composition of wheat and oats is given in tables. Oatmeal is, no doubt, very excellent food for man and beast, and so is Indian corn meal, but neither of them will confer intellectual acuteness upon any man. Dull teachers or dull men cannot be made philosophers either by the use of eggs or oats. We must look to some other cause than oatmeal for the metaphysical mind of the North Britons. That cause is, no doubt, to be found in their education. Common schools have been in existence in that country for two centuries, and the strict *family* training of children by catechisms being similar to that which used to prevail in New England, and various other parts of our country. The Welsh, the Norwegians and Irish use oatmeal extensively for food.—*Scientific American.*

ATTACK BY CATTLE UPON A RED WAGON.

The following extract is from one of Col. Claibourne's letters from the pine woods of Mississippi, published in the *New Orleans Delta*:—

"I set out for Augusta, bowling merrily along in a blood-red buggy. The road is beautiful, roofed over with trees and vines, and the air fragrant with the breath of flowers. There was only one drawback—the myriads of flies, of every species, that swarmed around, and ravenously cupped the blood from the ears, neck and flanks of my horse. It is what is appropriately termed here 'fly-time'—that is to say, the period when this numerous family of scourges have it all their own way, and neither man nor beast can venture into the woods with impunity. Now the cattle from a thousand hills, and even the wild deer, seek the abodes of men, and huddle around some smoking pine, or stand in some open field to escape their periodical tormentors. On a sudden curve of the road, I found myself in one of these 'stamping grounds,' and a simultaneous roar from five hundred animals gave notice of my danger. It is well known that the Spanish matadores provoke the wounded bulls of the arena by flaunting the *moleta* or blood-red flag before them. It was the color of my equipage that excited this bellowing herd. They snuffed the air, planted their heads near the ground, tore up the earth with their hoofs and horns, and glared at me with savage eyes. The fierce phalanx blocked the road, and they plunged on every side, crushing down everything in their course, goring and tumbling over each other, filling the woods with their dreadful cries, and gathering nearer and nearer in the fearful chase. The contest now became desperate. In five minutes we should have been overturned and trampled to death; but at this juncture I threw out my overcoat, and, with an awful clamor, they paused to fight over it and tear it into shreds. Driving at full speed, I tossed out a cushion; the infuriated devils trampled it into atoms, and came rushing on, their horns clashing against the buggy, and ripping up the ribs of my horse. At this fearful moment we were providentially saved. A monstrous oak, with a forked top, had fallen near the road, and into this I plunged my horse breast high, and he was safe, the back of the buggy being then the only assailing point. At this time the whole column made a dash, but I met the foremost with six discharges from a revolver; two bottles of Sewell Taylor's best were shivered in their faces; next a cold turkey, and finally a bottle of Scotch snuff—the last shot in the locker. This did the business. Such a sneezing and bellowing was never heard before; and the one that got it put out with the whole troop at his heels, circling round, scenting the blood that had been spilled, and shaking the earth with their thundering tramp. I was fairly in for it, and made up my mind to remain until sunset, when they would disperse, as in 'fly time' cattle graze at night. I was relieved, however, by the approach of some cattle drivers, who, galloping up on shaggy but muscular horses, and with whips twenty feet long, which they manage with surprising dexterity, soon drove the herd to their 'cow-pens,' for the purpose of marking and branding. This is done every year in 'fly time.' The cattle ranging, scattered thirty miles around, are now easily found collected at their stamping grounds, and are driven to a common pen or pound, where the respective owners assemble and put their marks and brands on the increase of the season. Thus the Egyptian plague is turned to a useful purpose."

For the New England Farmer.

THE CANKER WORM AGAIN.

Can we Protect our Orchards from his Ravages?—Several Plans that have been Tested, and the Results.

This is an old question, Mr. Editor, a *very* old one, as your man of the type very well knows; and it is a question which has proved as perplexing a puzzle to our brother farmers, as ever could have been propounded by the famous Sphynx of old. That little pest, the canker moth, though he has been exorcised in every way that Yankee ingenuity put to the rack, could suggest, and though repeatedly condemned to death by divers goodly inventions, still climbs the trees as large as life and as natural as ever, and still carefully deposits his eggs, big with destruction to the most interesting department of all our farming. The little insect which produces the canker worm is the indirect cause of serious pecuniary loss to the farmer, and he is, therefore, compelled to protect himself from his ravages; but who is there of us so wise, or so good, that we cannot learn from it "some lesson of wisdom?" I did not take up my pen to moralize, but consider what an example of self-devotion this little creature is. The closing act of its life is to propagate its species; when its instinct warns it that the period approaches for this, the great business of its life, how directly it sets out on its mission, how diligently it seeks a safe home for its future offspring, and with what untiring devotion it travels straight on to destruction, rather than locate its precious burden, it may be but an inch lower down the trunk of the tree, than might be for their best good. Its love for its offspring appears to be greater even, than its instinct of self-preservation. When civilization felled the wild fruit trees of the forest, it deprived him of his natural home, and driven by men from his native retreat, he has entered our gardens, and this, with no more evil design, than one who is not a moral and intelligent being, bears in his tiny body. May we all be as faithful in our several duties, with the light and guidance of our moral and intellectual nature, as this little creature is in completing his part of the great design, though without the aid of either.

In common with my neighbors, my garden has suffered much for several years past from the ravages of the canker worm. I perplexed myself with the various inventions the ingenuity of man has given birth to, as means of preventing the moth from ascending the trees; for here is where the work of defence begins and ends. First, I did fair battle with the enemy, and slaughtered at "hand to hand" conflict; but the experience of a few days demonstrated that, in projecting this campaign, I had, like the allies before Sebastopol, altogether "underrated the resources of the enemy." Next, I collected all the old boot-legs about the premises, carried them to the garden, and with awl and thread made a wide, close-fitting leather belt for each tree, and over this laid a thick mixture of tar and india rubber, but after a short time, the coating became hardened in places, and Mr. Moth marched triumphantly up. The next winter I set to work in earnest, determined to barricade the persistent enemy, if the thing could possibly be done. Commencing in October, every fair day when the temperature was such that the moth could possibly be stirring, each tree received a fresh coating of tar. This plan, as might be conjectured, did the work pretty effectually, and had I commenced the work a little earlier, probably not a canker worm would have shown himself on the trees for that season. But, would such a course *pay?* Very obviously it would not, when applied to orchards of any size, unless a man could bring to his task the patience of a Job, after having taught every other department of the farm to take care of itself. Besides, this plan brought an after and unlooked for harvest; for between the running of the tar down the trunks of the trees, and the hidden work of the borer behind the leathern band, we barely escaped the loss of some of our most valuable trees. Then I tried the cotton-batting discovery. The result of this is very generally known; it did *check* the ascent of the moth, but was by no means a protection. Again, I attempted to balk the instincts of the little intruder by enclosing the trunk of each tree at the surface of the earth, with a box having the form and position of an inverted truncated pyramid, and bordering the upper edge with a hedge of dry tree trimmings, none of which touched the tree. We had hoped that the insect, not finding ready access to the tree, would ascend the sides of the box, and then, instead of descending within to get access to the tree, would continue ascending, and deposit its eggs among the dead trimmings. But I was deceived; their instincts proved too nice and too true for the success of my plan, and eventually they generally got access to the trees, and deposited their seeds of mischief. Next year I sent for a workman in a neighboring town, and employed him, at a heavy expense, to protect each tree with a leaden collar. This collar, as your readers are doubtless aware, is composed of a leaden trough surrounding the tree, and designed to be filled with oil, and a roof of lead which projects over the trough and sheds the rain. The leaden collar, when properly applied and carefully attended to, is, doubtless, as efficient a protection as can be designed. But there are several objections to the use of the collar; it is costly; the rain in our driving storms is apt to drive in under the roof and float out the oil; the substance from which the collar is made will not allow of much plugging, and if they are not watched, the weight of the material is apt to give the trough a slant, and so drain the oil from one side, and thus give free passage to the moth; again, the oil soon becomes a thick, glutinous mass, needing but the addition of the dead bodies of a few moths to furnish ample means of passage to the enemy; or the dust and dirt may blow in, and furnish bridging on a larger scale; and, lastly, spiders, from the near proximity of the edge of the trough to the edge of the roof above, are much in the habit of connecting the two by their webs, and so give another means of avoiding the snare of cruel man. There are other objections that might be made against the use of the leaden collar. As the time is now at hand when the intelligent farmer will be devising some means of protecting his trees for the coming season, my practical experience, though hastily presented, may possibly prove of some value to him. The question again returns, can our trees be protected from the ravages of the canker worm? I believe they can; and that by a very simple remedy, which, with your permission, Mr. Editor, I will present in the next number of the Farmer.

J. J. H. Gregory.

Marblehead, Mass., Oct. 4.

THE DEW.

The following quotation from Dr. Wells on dew is highly instructive: "I had often smiled in the pride of half-knowledge at the means frequently employed by gardeners to protect tender plant from cold, as it appeared to me impossible that a thin mat, or any such flimsy substance, could prevent them from attaining the temperature of the atmosphere, by which alone I thought them liable to be injured. But when I had learned that bodies on the surface of the earth became, during a still and serene night, colder than the atmosphere, by radiating their heat to the heavens, I perceived immediately a just reason for the practice which I had before deemed useless. Being desirous, however, of acquiring some precise information on the subject, I fixed perpendicularly in the earth of a grass plot four small sticks, and over their upper extremities, which were six inches above the grass, and formed the corners of a square, whose sides were two feet long, I drew tightly a very thin cambric handkerchief. In this disposition of things, therefore, nothing existed to prevent the free passage of air from the exposed grass to that which was sheltered except the four small sticks, and there was no substance to radiate downward to the latter grass except the cambric handkerchief. The sheltered grass, however, was found nearly of the same temperature as the air, while the unsheltered was five degrees or more colder. One night the fully-exposed grass was eleven degrees colder than the air, but the sheltered was only three degrees colder. Hence we see the power of a very slight awning to avert or lessen the injurious coldness of the ground. —*Hunt's Elementary Physics—Bohn's Scientific Library.*

"PLOWING IN DROUGHT PHILOSOPHICALLY CONSIDERED."

Editors Southern Cultivator:—In the June number of your paper is an article with the above caption, and as you invite your "practical and observing readers" to give their opinion on this important subject, you have here the opinion of one who is not a practical tiller of the soil, and who professes to know no more of the matter than can be learned by observation and reflection. The present season has no doubt caused many to philosophize on this subject, and among others the writer, who has arrived at a very different conclusion from your correspondent "J." This conclusion is, that in a dry season, the *surface of the ground* (say one and-a-half inches,) *should be thoroughly pulverized*, but that *deep plowing is injurious.*

The pulverizing of the surface answers the purpose of mulching, and prevents the moisture of the soil below from evaporating; while deep plowing is injurious, because it breaks the roots of the crop, and causes the moisture of the soil, in which the plant gets its nourishment, to evaporate. Though there seems to be an inconsistency in this, it is only an apparent inconsistency, which vanishes when we reflect upon the manner in which the moisture is abstracted from the ground. The evaporation takes place at the surface, and the moisture from below is brought to the surface by capillary attraction. Now think of the degree of porosity at which this attraction will go on and the matter is plain. This hint will be sufficient for those acquainted with the laws of natural philosophy. "J.'s" crust, which he seems to value as a retainer of moisture, I consider to be just the reverse, unless it covers a layer of *very porous* dry soil, or is impervious to water. Another objection to the crust is that it prevents the air from circulating under the ground, as well as it would if it were broken.

But to express the idea without philosophical terms, one may easily test the matter by a simple experiment. Fill three boxes six inches deep with earth, and pour over them equal quantities of water, enough to wet the earth thoroughly. Then pack the earth in one box, leave two undisturbed; (they will be in the condition of plowed land after a good rain, while the first will be in the condition of unplowed land.) As soon as the crust forms and becomes dry, break it to the depth of one and one-half inches on one of the two and leave it on the other. If my theory is right, the packed box will dry first, the one with the crust pulverized last. If we add a fourth box, and stir it from the bottom occasionally, it would show the effects of deep plowing. The boxes, of course, should be exposed day and night.—*Southern Cultivator.*

MISTRESS STRONGATHAM'S CHURN.

Speaking of churns, we have never seen any other labor-saving contrivance in that department, that for practical convenience and utility could compare with that of Mistress Strongatham, a notable English housewife, whose acquaintance we had the pleasure of making in one of the rural districts of New York some years since. Having occasion to call upon her one summer morning, we found her occupying her huge chintz-covered rocking chair, rocking and knitting as though the salvation of the family depended upon the assiduity with which she applied herself to these occupations. Not that she was uncivil or unsociable by any means, for the moment we had taken the proffered chair she set in with a steady stream of talk that was as instructive as it was entertaining, for besides her admirable qualities as a housewife the lady possessed rare conversational powers.

During our call she directed one of her daughters to some duty in a distant part of the house, adding, "I would attend to it myself, but I *must* fetch this butter." Now, we had known something of the process of "fetching butter" in our early days, and the idea of a snow-white churn and an irksome expenditure of elbow grease was as naturally associated with it in our mind, as was the compensatory slice of new bread and butter after the achievement of the victory. We therefore cast our eyes about us involuntarily for these indications, but we looked in vain. Of either churn or churning there was no more appearance than might have been seen in Queen Victoria's drawing-room any day in the week. Our curiosity was excited, and we resolved to keep our eyes open, satisfied that if we did, "we should see what we should see." And we did. During a momentary pause in the conversation, the lady rose from her chair, removed the cushion, raised a sort of trap door underneath, and looked into the apparent vacuum with an earnestly inquiring eye. The secret was out. Under the seat in her rocking-chair was a box in which she deposited the jar of cream, and the agitation produced by the vibratory motion of the chair, converted the liquid into butter.

By this arrangement the lady was enabled to kill, not only two, but four birds with the same stone. She could churn, knit, take her ease in her rocking-chair, and entertain her morning guests at the same time. And such butter as she made! Yellow as gold, sweet as the meat of the cocoanut, and as hard, too; it always brought the highest price in the "rural" market. You may brag of your patent churns if you will, but for novelty, economy, convenience, and immaculate butter we defy them, one and all, when brought into competition with Mistress Strongatham's incomparable contrivance. Of her butter we shall retain a lively and grateful remembrance to our dying day; her churn we shall never forget either.—*Springfield Republican.*

MAKING A NEEDLE.

I wonder if any little girl who may read this ever thought how many people are all the time at work in making the things which she every day uses. What can be more common, and, you may think, more simple, than a needle! Yet, if you do not know it, I can tell you that it takes a great many persons to make a needle; and a great deal of time too. Let us take a peep into a needle factory: In going over the premises, we must pass hither and thither, and walk into the next street and back again, and take a drive to a mill, in order to see the whole process. We find one chamber of the shops is hung round with coils of bright wire, of all thicknesses, from the stout kinds used for cod-fish hooks to that of the finest cambric needles. In a room below, bits of wire, the length of two needles, are cut by a vast pair of shears fixed in the wall. A bundle has been cut off; the bits need straightening, for they just came off from coils.

The bundle is thrown into a red-hot furnace; and then taken out, and rolled backward and forward on a table until the wires are straight. This process is called "rubbing straight." We now see a mill for grinding needles. We go down into the basement, and find a needle pointer seated on his bench. He takes up two dozen or so of the wires, and rolls them between his thumb and fingers, with their ends on the grindstone, first one end and then the other. We have now the wires straight and pointed at both ends. Next is a machine which flattens and gutters the heads of ten thousand needles an hour. Observe the little gutters at the head of your needle. Next comes the punching of the eyes; and the boy who does it punches eight thousand an hour, and he does it so fast your eye can hardly keep pace with him. The splitting follows, which is running a fine wire through a dozen, perhaps, of these twin needles.

A woman, with a little anvil before her, files between the heads and separates them. They are now complete needles, but rough and rusty, and, what is worse, they easily bend. A poor needle, you will say. But the hardening comes next. They are heated in batches in a furnace, and when red-hot, are thrown in a pan of cold water. Next, they must be tempered: and this is done by rolling them backward and forward on a hot metal plate. The polishing still remains to be done. On a very coarse cloth, needles are spread to the number of forty or fifty thousand. Emery dust is strewed over them, oil is sprinkled, and soft soap dashed by spoonfulls over the cloth; the cloth is then rolled up, and, with several others of the same kind, thrown into a sort of wash-pot, to roll to and fro for twelve hours or more. They come out dirty enough; but after a rinsing in clean hot water, and a tossing in sawdust, they look as bright as can be, and are ready to be sorted and put up for sale. But the sorting and the doing up in papers, you may imagine, is quite a work by itself.

For the New England Farmer.

"STATE OF MAINE POTATO."

Mr. Editor:—I feel it a pleasure as well as duty to reply to the second article of "South Danvers" respecting the "State of Maine Potato." He admits that he knows but little about this variety of pototo from his *own experience*, but was led to make the statement concerning it, from what he heard from *another*, and he, one who is little accustomed to raising potatoes, and who probably never in his life has raised as many sorts as I have raised the past two years. And, though I would not doubt the truth of any statement that might be made by the worthy "President of the Massachusetts Horticultural Society—the best of observers"—and a better man does not live in the State—still I do very much question his experience in regard to raising potatoes, and especially the sort referred to; and I think your correspondent will not be able to get a statement from that source that will sustain his position; if he can, I should like to see it. And suppose he *can* find *one* man in the State who is not pleased with this potato, does it follow that it is "a miserable concern and entirely unworthy of regard?" On that principle, almost every variety of vegetable and fruit we cultivate would be condemned. Has not "South Danvers" been rather fast in condemning this potato, because one of his neighbors raised a few, and because those did not quite suit him in size—when he had little, or no knowledge of the thing himself? If this course was pursued in respect to everything else, where should we be? He intimates that the reason I puff this potato is, because I have them for sale; very true, I *have* them to sell for seed, and so have I got a great many other sorts, among which are an hundred and fifty bushels of Davis' Seedling, a sort he praises so highly, and which is really good. But shall my opinion be entirely set aside, because I have potatoes to sell? Who ought, and is expected to know the most about a thing, if it is not he who grows it most extensively? Again, he attempts to impeach my testimony, because *he says* I wrote—or he *thinks* I did—an article several years ago, respecting the "Danvers Winter Sweet Apple." Now all I have to say to that, is, one thing at a time, if you please; I want no side issues dragged in to prevent a fair discussion of the question before us. If *my* opinion is not worthy of notice, I can give the testimony of more than twenty-five, if not double that number of persons, who have raised this potato, some of them of this town, and many from other towns, counties and States. Yes, I will give the gentleman, if he wishes, the most substantial evidence from his own *county*. My only object, or desire is, that the truth may be known, and if this potato is as good as I believe it to be, let the farmers raise it; but if "it is a miserable concern," then I will raise my voice against it as quick as "South Danvers," or any other man, for I detest humbugs. More anon. J. F. C. H.

Newton Centre, Oct. 5, 1855.

EXTRACTS AND REPLIES.

A NEW DEPREDATOR.

MESSRS. EDITORS:—For some few years past, my neighbors have, as they supposed, been troubled by the birds taking the ends of their ears of Indian corn, from the time it is in the milk until harvest. Last year Mr. Ames, a near neighbor, informed me that his fields were very much damaged. This season my turn has come, but it is the work of an insect, in my case, at least, and I have good reasons for thinking that the birds have been charged with the labors of this bug, or unknown insect, quite too long.

Being yesterday in one of our fields of corn, for the purpose of cutting the top-stalks, I resolved that I would watch some of those ears which had been lately the food of something, I knew not what, when to my surprise, I found five of these insects very busy upon one single ear of corn, and each of them in the very act of eating it and dropping the husks in very small pieces upon the ground.

Herewith I send you a sample of their labors, and three of the insects. Perhaps Prof. Harris, or some other person with whom you may be acquainted, may be able to give us some light upon the subject. Nearly one-half of the best ears in one of our fields are badly injured, or partly destroyed.

Yours truly, C. W. MACOMBER.

East Marshfield, Sept. 11, 1855.

REMARKS.—One of the ears sent us was all destroyed, excepting, perhaps, half a dozen kernels, the other eaten only a short way down from the tip. We made a partial examination of the only one of the three insects left when the box reached us, and put him back for further investigation, but he too escaped, so that we are not able to give even a partial description. The eating off of the kernels was evidently not the work of squirrels or birds.

GUM IN PEACH TREES—ASPARAGUS.

MR. EDITOR:—Will you or some of your correspondents inform me of a remedy for the exuding of gum from peach trees?

Also, whether asparagus will do well transplanted in the fall? A SUBSCRIBER.

Hadley, Oct., 1855.

BUCKWHEAT PLOWED UNDER.

Can you inform me whether buckwheat will benefit a cold upland soil, if plowed under when in the blow? E. B.

REMARKS.—Certainly it will, and if enough of it is plowed under, will produce excellent crops, provided the land is well drained.

TROTTING HORSES.

MR. EDITOR:—Will some of your correspondents who own "fast nags," please favor me through the columns of your paper, with an account of their manner of treating them? That is, what kind of feed they give them; cut feed or their hay whole, what quantity, when, &c.

When they are to trot, should they be allowed to eat much that day?

There are many horses owned in the country that would make fair trotters, but their owners not being accustomed to the business, do not know how to take care of them properly, nor how to train them. A SUBSCRIBER.

Coos County, Oct. 4, 1855.

For the New England Farmer.

"WHAT AILS THE APPLE TREES."

MR. EDITOR:—In an article under this heading a correspondent refers to a disease in the bark of some of his trees, which he thinks may have been caused by a small worm working between the bark and the wood. As we have had a little experience ourselves in this matter, we venture to give you the result of our experiments.

The bark is no doubt affected by the working of a small flat worm from one-eighth to three-quarters of an inch in length. It is nearly white and works in a lateral direction, reminding one of the motion of the chain inside of a watch. It generally commences its ravages on the south side of the tree, working up and down and if not stopped in season, will girdle the tree. By removing all the dead bark, and all parts of the bark that bear traces of the worm, and rubbing over the place affected on the tree with soft soap, we have succeeded in saving our trees, though we lost one or two valuable trees before trying this remedy. Great care must be taken to cut every particle of bark which the worms have worked.

The above information I have gained from my husband, and hoping it may be of some use, I send it to you. Respectfully yours,

Springfield, Vt. ANN E. PORTER.

For the New England Farmer.

BUDDING WITH THE SECKEL PEAR.

MR. EDITOR:—The Seckel, Lawrence, and some other varieties perfect their wood very early in the season. A gentleman, to my knowledge, availing himself of this fact, several years since, on the sixth and seventh of July inserted on a standard, ***buds of the same year's growth.*** These buds took finely, grew nine inches during the same season, and ripened that wood so thoroughly that without a single exception they withstood the following winter; they are now fine, healthy branches, laden with their full quota of fruit. I see not, Mr. Editor, why this plan might not be generally practised in inserting the buds of such of our trees as ripen their wood early in the season, and thus a growth of one year be gained on the usual method. Should it be a fact that any early variety perfects its wood sufficiently early, then by inserting a plump fruit bud, might we not occasionally witness the phenomenon of a *late* crop of *early* pears produced on wood which grew the same year?

J. J. H. GREGORY.

Marblehead, Sept. 25, 1855.

For the New England Farmer.

WORCESTER SOUTH AGRICULTURAL SOCIETY.

This Society held its first anniversary under its charter, at Sturbridge, on the 3d inst. The weather was fine, the show of cattle good, the tables handsomely covered with fruits and various objects of female manufacture, and the whole went off in a very satisfactory and encouraging manner. The address was by Hon. Amasa Walker; subject, Home Education of the Farmer. The speaker dwelt principally upon the practicability and importance of establishing Farmers' Clubs in every agricultural town in the commonwealth, for the purpose of establishing courses of lectures and classes for studying agricultural works. These he would have united into one great system under the auspices of the State, all acting together, and co-operating for the diffusion of scientific and practical information in regard to agriculture, horticulture, and other kindred topics. The subject was examined in all its details, and its feasibility illustrated by analogous examples. The address was listened to with profound attention, and seemed to meet the approval of the audience.

For the New England Farmer.

REMOVAL OF STUMPS.

Mr. Editor:—In a recent number of your journal appeared an article approving the use of the stump machine. We have adopted a method in this vicinity for the removal of stumps which I find efficient and profitable. Dig about the stumps to expose the main body, then fill in with dead brush or other dry stuff, and pile fuel about the stump somewhat after the manner of preparing a coal kiln; cover with sods closely and compactly, open a small place and set the wood on fire, and close all up. If properly tended for a few hours, to renew sods and keep the covering close, the stump will be reduced to ashes fit for fertilizing purposes.

Every large pine stump which I can treat in this manner I regard worth about a dollar.

Bangor, Me. Michael.

A FARM STEAM ENGINE.

One of our correspondents—A. C. Ireland, of Chillicothe, Ohio—informs us that a neat portable steam engine, for driving a grain thrasher and separator, has been constructed at the machine shop of Wm. Welsh, of that place, under the superintendence of John Ritchie, and has been in operation since the 5th of last July, thrashing and cleaning from five to six hundred bushels per day. It is capable of doing more than this, but H. Wade—for whom it was built—says that this is excellent work. The boiler is tubular, the cylinder is of 6 inches bore and 12 inches stroke. It make 175 revolutions per minute, with steam at 40 lbs. pressure, and does more work than any common thrashing machine driven by eight horses. It is placed on broad tread wheels, four feet in diameter, is easily drawn from place to place by two horses, with the boiler filled, and is very economical in the use of fuel. This engine is capable of driving various agricultural machines and sawing firewood for the family. We have no doubt but portable steam engines will yet come into more general use among our farmers, as they are so convenient and easily managed in comparison with horses. We believe that on every farm numbering a hundred acres and upwards, a portable engine could be profitably used.—*Scientific American.*

Acknowledgments.—Our acknowledgments are due Daniel P. Coburn, Esq., of Tyngsboro', for a variety of apples, as well as for a forty-pound melon. To Mr. Elbridge G. Farmer, of West Cambridge, for apples, and to several unknown persons who have kindly sent us fruits.

BOYS' DEPARTMENT.

THE WORM AT THE ROOT.

BY UNCLE FRANK.

When I was a little boy, I always took a great interest in the plants that grew in my father's garden. My father was quite a gardener. The neighbors, I remember, used to say that his heart was bound up in his garden. Every morning in the spring of the year, after the plants began to show their heads above the surface of the ground, he might be found among the cucumbers, and the melons, and the peas, and the cabbages; and I learned, after a while, to watch the appearance and growth of these plants with almost as much interest as he did.

One spring, I recollect, the cucumber plants were quite backward in showing their faces above ground. It grew so late, that he almost despaired of their coming up at all. The weather was too cold, probably, to admit of their sprouting. They came up, however, at last, and looked as finely as if they had appeared at the time when they were first due. They grew fast as soon as the warm weather came on; and, to my eyes, it was a very pleasant sight to see the old oval leaves growing wider and new ones of a different shape coming out, one after another, above them.

I was a good deal surprised, though, one morning, to see several of these plants looking sickly; and I was still more surprised the next day, to find them looking worse. Nor was that all the mystery. Other plants were, one by one, attacked in the same way, and they, like the first, sickened and died. What was the matter with the cucumber plants? Were they sick? Was it a disease that struck them and carried them off?

I went to my father with the inquiry. "*It is a worm at the root,*" he said. I thought he must be mistaken, and told him so. I had pulled up some of the plants which were dying, and could see no worm round the roots. There is a large black worm that often cuts off the young cucumber plant, just below the surface of the ground. He does his work as neatly as a man could do it with a penknife. That was the kind of worm I expected to find. But he was not there, and I knew of no other worm that was an enemy to young cucumber plants. But I found out, from my father, at the time I am speaking about, that there is a very small worm who kills the cucumber plant as surely as the black rascal, though he goes at his work in a different way. He is a very little fellow, and gets inside the root, makes his home there, poisons the plant, and eats out its very life, little by little.

Now, my dear reader, that is just exactly the way that a certain little worm cuts up everything good in the heart, when he is allowed to stay there. And I'll tell you the name of that worm, and describe him to you when you come across him, so that you will guard against his sly mode of doing mischief. I say his *sly mode* of doing mischief. That is the greatest danger one has to fear. It is his sneaking way of spoiling the young plant.

A very dear friend of mine has two children. One of them is about eight years old, and the other, perhaps, twelve. Now, the younger of these brothers is beloved by everybody, while the older is very generally disliked. Shall I tell you the reason why people regard the two brothers with feelings so widely different? I know well enough what the reason is. It is because one is unselfish, and the other is selfish. Nathan, the older brother, was not always the unlovely boy he is now. When I first knew him, several years ago, though he had then rather too much selfishness about him, I thought I could see a great many things to love in him. The truth is, that thief of a worm, *selfishness*, has been at work for years in his heart, and he has been eating all the time. He has grown to be a large worm now. The plants he has fed on have nourished him and made him grow. He does his work faster and faster, as he gets larger.

It is astonishing what havoc this worm makes in the garden of that boy's heart. The sly fellow does not content himself with one plant. He gnaws a little at the root of one, and then goes to another, until he has injured, if not quite spoiled everything lovely in the garden. The worm seems to like the finest plants better than the rest, and so he eats away at the roots of *Kindness*, *Charity*, *Gentleness*, *Love*, *Forgiveness*, *Truth*, *Frankness*, *Generosity*, and such tender and delicate plants as these.

I tell you what, young friend, Selfishness is one of the worst enemies you can harbor in your breast.

"Oh, I'm not selfish, Uncle Frank. Pray don't accuse me of selfishness."

I don't accuse you of selfishness. I hope, indeed, you are not selfish. But, as I said before, this worm is a sly fellow. He creeps slyly into the heart, in the first place, and he does his work there slyly. You had better look out for him. That is my advice. If he is in, turn him out; the quicker the better. If he has not crept in yet, don't let him in. Keep him out, keep him out!—*Youth's Cabinet.*

LADIES' DEPARTMENT.

DOMESTIC RECIPES.

Baked Beets.—A good housewife assures us that the mode of cooking beets herein described, is preferable to all others:

"Beet root cannot be too much recommended to the notice of mankind, as a cheap and salubrious substitute for the now failing and diseased potato. Hitherto the red kind has been only used in England as a pickle, or as a garnish for salad; even the few who dress it, generally boil it, by which process the rich saccharine juice is lost, and the root consequently rendered less nutritious by the quantity of water it imbibes, as well as by parting with the native syrup, of which it is thus forcibly deprived; it is, therefore, strongly recommended to bake instead of boiling them, when they will be found to afford a delicious and wholesome food. This is not an untried novelty, for both red and white beets are extensively used on the continent; in Italy, particularly, they are carried about hot from the oven twice a day, and sold publicly in the streets; thus they are purchased by all classes of people, and give to thousands, with bread, salt, pepper and butter, a satisfactory meal. There are few purposes for which baked, or even roasted or fried beet root, would not be found preferable to boiled.—*Ag. Exchange.*

To Preserve Crab-Apples.—Take off the stem, and core them with a pen-knife, without cutting them open; weigh a pound of white sugar for each pound of prepared fruit; put a teacup of water to each pound of sugar; put it over a moderate fire. When the sugar is all dissolved, and hot, put the apples in; let them boil gently until they are clear, then skim them out, and spread them on flat dishes. Boil the syrup until it is thick; put the syrup in whatever they are to be kept, and when the syrup is cooled and settled, pour it carefully over the fruit. Slices of lemon boiled with the fruit may be considered an improvement; one lemon is enough for several pounds of fruit. Crab-apples may be preserved whole, with only half an inch of the stem on; three-quarters of a pound of sugar for each pound of fruit.—*Godey's Lady's Book.*

Custard Pie without Eggs.—Place a quantity of new milk, as much as desired, over a slow fire, and allow it to heat slowly until it boils, taking pains not to scorch it, as that imparts a disagreeable taste. For every quart of milk take four tablespoonfuls of flour, beat it well with cold milk to prevent it from being lumpy, and as soon as the milk boils, pour in the thickening and stir it well until it boils again, then remove it instantly from the fire. Sweeten to suit the taste, and flavor with nutmeg or cinnamon, and it is ready for use, either cold or hot. Prepare the crust as usual for custard pies, fill them with the above preparation, and bake them an hour in an oven moderately hot. When sufficiently cooked, they will resemble in appearance a genuine "egg pie," and will scarcely be distinguished by the taste. Custards may be made in the same way, and if baked until the whey starts, they will be nearly equal to those prepared with eggs. Rice and other puddings may be made without eggs, by boiling and thickening the milk in this way, and if they are well baked will prove excellent.—*Ohio Cultivator.*

To Make Good Jelly.—Take apples of the best quality and good flavor, (not sweet,) cut them in quarters or slices, and stew them till soft; then strain the juice, being very careful not to let any of the pulp go through the strainer. Boil it to the consistency of molasses; then weigh it and add as many pounds of sugar, stirring in constantly until the sugar is dissolved. Add one ounce of extract of lemon to every twenty pounds of jelly, and when cold, set it away in jars. It will keep good for years. Those who have not made jelly in this way, will do well to try it. They will find it superior to currant jelly.—*Michigan Farmer.*

Bachelor's Pone.—One quart of milk, two eggs, teaspoonful of salæratus, and Indian meal sufficient to make a batter about the thickness of pancakes. Bake quick in pans previously buttered, and eat while they are warm.

New England Farmer.

RATES OF ADVERTISING.

For one Page, one insertion, ...	$10,00
For one Page, six months, ...	55,00
For one Page, one year, ...	100,00
For one-half Page, one insertion, ...	5,00
For one-half Page, six months, ...	28,00
For one-half Page, one year, ...	55,00

Advertisements of less than half a page will be charged at the rate of six cents per line, nonpareil. No discount will be made from the above rates.

New Canaan Nursery,

3½ MILES FROM NORWALK BRIDGE.

The subscribers respectfully solicit the attention of fruit-growers and dealers in trees to their large stock, offered for sale this Fall and the coming Spring, consisting in part of 50,000 Apple trees, three and four years old from the bud or graft, of thrifty growth and the most approved varieties. Also, 15,000 Peach trees, one year from the bud.

Persons wishing to purchase will do well to examine our stock or communicate with us before purchasing elsewhere.

STEPHEN HOYT & CO.

New Canaan, Ct., Oct. 13, 1855. 4w*1

Fruit and Ornamental Trees,

SHRUBS AND ROSES.

R. Mattison & Co.'s Standard Pear Trees of superior quality.

All orders thankfully received and promptly and carefully attended to, and should be addressed to the subscriber, at the Thorndike P. O., Palmer, Mass.

Nov., 1855. 1m M. L. HITCHCOCK.

New-Rochelle or Lawton
BLACKBERRY.

THE subscriber has been appointed agent by Messrs. George Seymour & Co., South Norwalk, Ct., for the sale of the genuine Plants, direct from their grounds, of this new and superior variety, fruit very large and sweet. It is an enormous bearer. Fine, strong plants will be ready for delivery in October and November, or March and April next, at $6 per dozen plants.

Also for sale, New or Pure Red Antwerp Raspberry Plants, Fruit Trees, Grape Vines, &c.; 25,000 Pear Trees on Quince Stocks; 10,000 do. do. on Pear Stocks, choice varieties at very low prices.

GEO. DAVENPORT,
14 Commercial, corner of Chatham Street, Boston.
October, 1855. *tf

BENJAMIN TOLMAN,
BOOK, CARD AND JOB PRINTER,
CONCORD, MASS.

☞ Printing of every description, such as

Pamphlets, Posters, Auction Bills, Bill-Heads, Circulars, Billets, Blanks, Receipts, Labels, Ball, Marriage, Address and Wedding Cards, &c. &c.,

executed in a neat and correct manner, at reasonable prices. Orders sent by mail or express, or left with the Depot-master at the Concord Station, will receive prompt attention.

Plain and Fancy Cards, Wedding Envelopes and Cake Boxes constantly on hand. 6m Aug. 4.

Buckthorn Plants.

15,000 Buckthorn Plants 2 and 3 years old.
20,000 Arbor Vitæ, for evergreen hedge, small-grown in nursery.
1,000 Norway Spruce 2½ to 3 feet.

For sale by PARKER, WHITE & GANNETT, 47, 59 & 63 Blackstone Street.

Oct. 20, 1855. 3w

Ruggles, Nourse, Mason & Co.,

Manufacturers and Dealers in all kinds of

AGRICULTURAL IMPLEMENTS
AND MACHINES,
Such as Horse Powers and Threshers,
FANNING MILLS, KETCHUM'S MOWERS,
HORSE AND HAND RAKES,
Superior Plows, of all Kinds and Sizes,
HORSE HOES, SEED SOWERS, CORN PLANTERS, PORTABLE GRINDING MILLS,
Hay, Stalk and Straw Cutters,
STORE TRUCKS, SHOVELS,
SPADES, FORKS, HOES, &c.

MANUFACTORY AT WORCESTER,
WAREHOUSE,
Quincy Ha, Boston, Mass.

January, 1855.

Andre Leroy's Nurseries,

ANGERS, FRANCE.

The undersigned begs leave to inform his numerous friends and customers, that he is now ready to execute all orders for Fruit, Forest and Ornamental Trees, Evergreen Shrubs, Stocks, etc. etc. His stock is particularly fine this year for all kinds of trees except Quince Stocks, the crop of which has again failed. The Catalogue for 1855 is ready for distribution, and all those who wish to obtain a copy, can procure one free of charge, by addressing our agent in New York, Mr. F. A. BRUGUIERE, No. 128 Pearl Street, successor to our former agent and friend, Mr. E. Bossange, who has retired from business. Orders should be sent at once, to secure a complete assortment. All required information to import trees, etc., will be found on the first page of our Catalogue.

ANDRE LEROY. Angers.
F. A. BRUGUIERE, Sole Agent,
Sept 22. 3m 138 Pearl St., New York.

FERTILIZERS.

De Berg's No. 1 Super-Phosphate of Lime,
BEST PERUVIAN AND MEXICAN GUANO,
GROUND BONE, GROUND PLASTER,
TAFEU, "Lodi Manuf. Co.,"
POUDRETTE, " " "
MURIATE OF LIME, "Gould's,"
PULVERIZED CHARCOAL, SULPHATE OF AMMONIA, &c.

ALSO FOR SALE,

Grass Seeds of Reliable Quality.

GEO. DAVENPORT,
Jan. 27. 14 Commercial, corner Chatham Street.

J. HAPGOOD,

MANUFACTURER AND IMPORTER OF

GUNS, RIFLES AND PISTOLS,

Cast Steel and Iron Rifle Barrels,
GUN LOCKS AND GUN TRIMMINGS.

Dealer in the Hazard Company and Enfield Company's Sporting Powder, of various qualities and sizes of grain, elegantly put up in Kegs and Canisters, and manufactured expressly for the Boston market. Also, Shot and Balls, Percussion Caps, Hunting Knives and Flasks, Powder Flasks, Shot Pouches, Game Bags, Fish Baskets, &c. &c. Embracing every description of Hunters' Goods.

12 Washington Street, Boston.

Agricultural Education.

ARRANGEMENTS have been made, in connection with Amherst College, for the Instruction, in Agriculture and its kindred sciences, of young men, not permanently members of the College, but who may resort to it, for longer or shorter periods, at pleasure, for this specific purpose.

It has been thought best that this Instruction should not extend, as in the case of students pursuing a full collegiate course, over the whole year, but should be limited to such portions of time as may better suit the convenience of those for whom it is specially designed.

Accordingly, the Instruction will be given only during the Fall and Winter Terms of the College; the former commencing on the first Wednesday of September, the latter on the second Wednesday of January, each continuing thirteen weeks.

Besides daily Recitations during both Terms, on subjects of Practical Agriculture, and on the Applications of Science to the same, students in this department will have access to the College Library, to the Cabinets of Natural History, and to the following valuable courses of Lectures:—

1st. A course of Lectures on Geology; and another on Anatomy and Physiology, extensively illustrated, by Rev. Dr. Hitchcock. (Fall Term.)

2d. A course of Lectures on Mechanical Philosophy, Hydrostatics, Hydraulics, Electricity, &c., by Prof. E. S. Snell. (Fall and Winter Term.)

3d. A very full course of Lectures on Inorganic and Organic Chemistry, with important applications, by Prof. Wm. S. Clark. (Winter Term.)

TERMS.—For Tuition, including Lectures and use of Library and Cabinets, $10 per term of thirteen weeks. Board from $2 to $3 per week.

For further particulars, address the subscriber at Amherst.

Sept. 22. J. A. NASH.

WHEELER & WILSON'S

FAMILY SEWING MACHINE.

THIS Improved Machine is rapidly coming into general favor, and is acknowledged to be the *only* machine adapted to family use. The beauty and durability of its stitching is unrivalled, working equally on fine cambric, linen, quilting and heavy broadcloth. Its rapid and noiseless operation is an advantage possessed by no other machine, while its simplicity of construction renders it easier to be used and less liable to need repairs—an *objection* reasonably urged against every other machine. To Families, Tailors, Shirtmakers, Milliners, &c., it is invaluable.

These celebrated machines are in operation and for sale at

93 *Court Street, Corner of Cornhill,*

Where specimens of their work will be furnished at any time.

Feb. 1855. 1y. J. E. ROOT, Agent.

Farmer Wanted,

By a Landed Proprietor in Northern New York.

THE advertiser has ten thousand acres of wild wood land, within six hours of Albany, the capital of New York State, adjoining a cleared farm, with necessary buildings. He wants the farm occupied by a family, and the wild land settled by a good emigrant population, and wants the Farmer to act as a Land Agent, in selling and disposing of the same. It is indispensably necessary that an applicant for this position should possess active intelligence, and be able, by correspondence and fit ingenuity, to bring in emigrants, (for the land lies out of the great tide of emigration;) and he must be able to produce the most satisfactory testimonials of these abilities, and that he is entirely unindebted for pecuniary liabilities. Twenty-five per cent. commission on sales will be allowed.

Address Mr. COVENTRY, De Kalb, St. Lawrence County, New York. 12w1* Sept. 29.

WOOD ENGRAVING.

D. B. GULICK,

ENGRAVER ON WOOD,

No. 191 WASHINGTON STREET........BOSTON.

[Entrance on Norfolk Avenue.]

☞ Every description of Wood Engraving promptly executed on the most reasonable terms. Designs furnished. Call and see specimens. 1y—oct.*1y. Sept. 22.

Super-Phosphate of Lime.

150 TONS JUST RECEIVED.

HILDRETH'S celebrated No. 1 Super-Phosphate of Lime, the most superior article of the kind in the market, and should at once arrest the attention of Farmers and Horticulturists.

For sale in quantity to suit by E. C. KINSLEY,
Oct. 13. is1m 31 India Street, Boston.

Valuable Mill Property for Sale.

The valuable Mill Property formerly owned by CLARKSON MARTIN, in the town of STARKEY, Yates County, New York, consisting of a stone Grist Mill, with two rows of stone, a good Saw Mill, Farm House and Barn, and twenty-five acres of land, will be sold on terms to suit purchasers, at a *great bargain* to any one desirous of procuring such a location.

The Grist Mill is well built, in good repair, within about two miles of the flourishing village of Dundee, on Big Stream, and has an abundant supply of water at all seasons. It is situated in the heart of the rich agricultural country on Seneca Lake—unrivalled for its fertility, and accessible by different railroads from all parts of the Union, being but a mile and a half from the Canandaigua and Elmira Railroad, and commands a large share of the custom work and flouring business of the surrounding country.

The Saw Mill is in good repair, with a Lath Machine thereto attached, and capable of manufacturing a great quantity of lumber and laths during the year.

A part of the land is good for agricultural purposes, the balance lying on the stream, affording, with the dwelling-house and out-buildings, a convenient and comfortable home for the mill attendants.

The roads to and from the Mill are convenient and in good order. The title is indisputable, and the opportunity is one that seldom occurs.

For further information apply to WHITNEY, FENNO & CO., Boston, Mass., or to N. RAPLEE, or
D. J. SUNDERLAND,
Sept. 15. 3m Agents at Dundee, New York.

Notice.

By license of Court, will be sold at Public Auction, on the premises, in GRAFTON, on Wednesday, the fourteenth day of November next, at nine o'clock in the forenoon, the following real estate, recently owned and occupied by Timothy Merriam, late of Grafton, deceased, situated about two miles east of the centre of Grafton, consisting of a good two-story house, barn 90 by 30 feet, corn-barn, and other necessary out-buildings, 301 acres of good land, suitably divided into mowing, pasturing and tillage, with a good supply of wood and fruit trees of various kinds. It is well watered, a durable stream passes through the farm. Several acres of the meadow contain excellent peat. It is well adapted for a milk farm, for which purpose it is now used.

The above farm offers rare inducements for a practical farmer; the tillage land is easy of cultivation, and fruit trees flourish well. The farm now keeps a large stock, and is capable, by good husbandry, of keeping much more.

Also, will be sold at the same time and place, the personal property, consisting in part of 35 tons hay, 150 bushels corn, 200 bushels potatoes, 18 cows, 1 pair oxen, horse, farming tools and household furniture.

JOSEPH B. ADAMS, Administrator.
D. F. NEWTON, Auctioneer.
Oct. 13. 5w

Farm for Sale.

The subscriber offers his Farm for sale, situated in WESTMORELAND, N. H., containing about 25 acres of good land, with a cottage house, barn, ice house, and all other necessary buildings, all in perfect repair, with first-rate never failing water running in the house and barn in lead pipes; two wells, one within ten feet of the door; and one of the best orchards of grafted fruit that can be found. Said farm is located near the centre of the town, stores and mechanics of all kinds near by, saw and grist mills, schools and churches, but a short distance, two depots on Cheshire and one on Vermont Valley Railroads within three miles. As for location, pleasantness and goodness of said farm, it will answer for itself, and now is the season of the year when it will show what it is. Any person in want of a pleasant home, where the expense of living is moderate, will find this a rare opportunity. If you want to purchase, come and see it. I shall ever be ready and willing to give all necessary information in relation to it.

Also, a new building near the premises, that can be had if desired. It has been occupied for three years past as a harness shop. It will make a very good dwelling-house, with little expense. DEXTER WARREN.

Westmoreland, N. H., Oct. 6, 1855. 6w

Imported Fowls.

For sale at a moderate price, if applied for soon, several pair of Fowls bred from imported and prize stock, very pure and beautiful, of the following prolific breeds: White Shanghae, Black Spanish, Golden Pheasant, Silver Pheasant, Spangled Polish, Dutch every-day Layer, and Black Bantams.

Boxes prepared to contain the Fowls that will give them ease and safety on a long journey. H. H. LITTLE.

East Marshfield, Mass., Oct. 13, 1855. 4w*

H. Bailey

TERMS.....$1.00 A YEAR.

THE
NEW ENGLAND FARMER:

A MONTHLY

AGRICULTURAL JOURNAL.

FOR THE FARM AND GARDEN.

SIMON BROWN, EDITOR.

FREDERIC HOLBROOK, OF VERMONT, HENRY F. FRENCH, OF NEW HAMPSHIRE,

ASSOCIATE EDITORS.

Without encouragement of AGRICULTURE, and thereby increasing the number of its people,
any country, however blessed by nature, must continue poor.—SWIFT.

Vol. VII. DECEMBER, 1855. No. 12.

BOSTON:
JOEL NOURSE, PUBLISHER,
QUINCY HALL.

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POSTAGE.—The Postage on the Monthly Farmer, to subscribers, is now twelve cents a year, to be paid quarterly or yearly, in advance, at the office where it is received.

DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

VOL. VII. BOSTON, DECEMBER, 1855. NO. 12.

JOEL NOURSE, Proprietor,
Office....Quincy Hall.

SIMON BROWN, EDITOR.

FRED'K HOLBROOK, } Associate
HENRY F. FRENCH, } Editors.

CALENDAR FOR DECEMBER.

"Hoary, and dim, and bare, and shivering,
Like a poor almsman comes the aged Year,
What kind 'God save you all, good gentlefolks !'
Heap on fresh fuel, make a blazing fire.
Bring out the cup of kindness, spread the board,
And gladden Winter with our cheerfulness!
Welcome ! To you, and yours, and all ! All health !"
Lay of a Twelvemonth.

DECEMBER closes the circle of *the Months*—each has appeared in its turn, bringing its peculiar appearances, and influences, and appropriate duties,—each in its own way carrying forward the great work of reproduction, to sustain the teeming population of the earth; and though so different in their character, they are equally essential in their relation to the whole, having a mutual office to perform which must fail without a perfect union and harmony of purpose.

But the change is striking. The green meadows and leaves were followed by our gorgeous autumnal foliage, with its innumerable tints gleaming in the sun, and the thousand varying hues of the low shrubbery, the darker red and purple, or the brighter orange of the shrubs under the walls and fences, or scattered among the undergrowth of the forest. And still another change has come; all these, late so beautiful, have disappeared. The noble forest is stripped of its summer dress, and its showy, yet fading, autumnal vestment, and stands bare in stern grandeur, indifferent to all the assaults of Winter. The graceful elm or drooping willow, the noble oak and ash and the symmetrical maple, have all yielded to the common law—have cast their no longer useful leaves, and now stand unincumbered to resist the shocks of northern blasts, or to reject the accumulating snows which would otherwise rest upon and crush them to the earth. "Now, denuded of their gay attire, they spread forth their thousand branches against the gray sky, and present as endless a variety of form and feature for study and observation, as they did when dressed in all the flaunting fashions of midsummer. Singly, the fruit trees, as trees, have little beauty—but clustering in the orchard, they partially atone for the desolation around them, and prevent the whole landscape from being blank. On a closer examination, their bloom-buds, which the late leaves of autumn, had concealed from the view, stand confessed, upon the otherwise bare branches, and, dressed, in their patent wind-and-water-proof coats, brave the utmost severity of the season,—their hard unpromising outsides, compared with the forms of beauty which they contain, reminding us of their friends, the butterflies, when in the chrysalis state." Now the fields are brown and sere, the hills are deserted of oxen and sheep and milch-kine, and look rusty and dull and forsaken. Now the low meadows reveal by their bright red leaves and stems, the cranberry patches dotted here and there through their whole extent, and giving those usually disagreeable grounds an attractiveness which they do not possess at any other period of the year.

Then The Garden, blank and dreary and dismal as the landscape generally is, The Garden, must not be forgotten, for Nature does not forget it. "Though the gardener can find little to do in it, *she* is ever at work there, and ever with a wise hand, and graceful as wise. The wintry winds of November having shaken down the last lingering leaves from the trees, the final labor of the gardener was employed in making all trim and clean; in turning up the dark earth, to give it air; pruning off the superfluous produce of summer, and gathering away the worn-out attire that the perennial flowers leave behind them, when they sink into the earth to seek their winter home." In the garden young pear trees, plums, quinces, and various shrubs, are clustering about each other, and seem to have a mutual understanding that they will resist the Winter together like a company of friends in adversity, who will support and encourage one other to the last. Sometimes, if the snows have not come, and the sun looks kindly into the garden, a bright Pansy may be seen even in DECEMBER, half-hidden under a friendly leaf, but peeping out into the world at mid-day; or a few Chrysanthemums may still linger, their various-colored stars looking like faded imitations of the gay, glaring China-aster. Here, too, may flit a bird, lingering too long in his summer home, or perchance one from higher regions north, the pioneer of thousands yet to come. The currant and gooseberry bushes, the climbing plants, the raspberry canes, bending their long tops gracefully to the earth, with the edges of box along the paths, and here and there the arbor vitæ, the pine, fir or spruce breaking the north winds and sheltering the more tender plants, give the garden an aspect of warmth and attractiveness, amid the general decay which prevails on the farm.

DECEMBER is a merry Month, after all. Dreary fields, bare forests, cold and snow and winds only compel us to seek within, the enjoyments which the Summer presented to us from without. So we find the heart *turning to itself* for a compensation for what it has lost in the wonderful drapery of the earth, in soft winds, refreshing showers, singing birds, and the joy manifested in the summer season by all animated creation. Now we have a comparative exemption from labor, bright fires and cheerful hearths; gathered households and happy reunions, weddings, and the delightful contemplation of full granaries and cellars and barns, and the hope that all the dear ones entrusted to our care may share in the products of the farm, so bountifully provided by Him who never fails to pour into the lap of honest Industry a due reward.

This has been so in all time, and it is curious to observe what a wonderful power man has to create, as it were, by turning to himself, a compensation for that which is lost by the operations of nature, and over which he has no control. So December *is* a merry month—having its merry meetings throughout our land, and its "Wish you merry Christmas," on every tongue. In describing the customs of the people, English history is full of interesting accounts of their enjoyments in December, and what is remarkable, and what it would be well for us to imitate, their ceremonies and happy gatherings were always in reference to the Harvest, and their expressions of gratitude were mingled in their games and diversions of every kind. They had foot-balls, matches, races, dancing, wrestling, climbing, singing and story-telling. Matches were made and maidens were married, and those who had no "gay Lothario" to call their own, would sometimes indulge in attempting to divine the name of the man they were to marry, in various ways. One was for the girls to go to the wood-pile, and each draw a faggot-stick; if the stick was straight and nice, then the future husband would be good-tempered and kind, but if the stick were crooked, then the husband would be a "hard customer," and lead them a crooked life.

Old Barnaby Googe renders this account into metre, and it may be interesting to some of our unmarried readers to see it, and is as follows:—

"Unto some woodstacke do they go,
and while they there do stande
Eche one draws out a faggot sticke
the next that comes to hande,
Which if it straight and even be,
and have no knots at all,
A gentle husband then they thinke,
shall surely to them fall.
But if it foulle and crooked be,
and knotted here and theare,
A crabbed, churlish husband then,
they earnestly do feare."

So they had many similar festivals in France, which were abrogated by the revolution, but revived by Buonaparte, he appreciating the influence of such customs upon the people.

Our Initial Letter, at the head of this article, indicates something of the old customs. The Harvest is gathered—all the gods of the Seasons have smiled upon us, Ceres, Pomona and old Cybele herself—so that our garners are full, and here they are being presented, perhaps by some of the goddesses themselves, after having exhausted all the mysteries of the culinary art in their preparation. Come, then, to the feast, earned by your Industry and Skill. Welcome, December, storm and bluster as you will, come with snow and hail and cimmerian darkness, if you please, you cannot touch the cheerful hearts that have gathered the Harvest and spread this bountiful board. With our thanks first to the Giver of the Sunshine and the Rain, and next to the willing and efficient partners of our toil, we gladly sing out the last days of the Old Year, and trustfully await the advent of the New.

As we have intimated above, the engagements of the farmer are not now so pressing as in some of the other months, but still, work may always be found, and one important item is in regard to the

MANURE HEAPS.—As, in our climate, planting time is short, every thing should be done that may be, to favor the labor of that period. All the manure that can be got at, should be removed to the fields where wanted. While severe frost prevails, it will not be injured by the sun and air, and as soon as the surface of the earth around the heap is thawed, the heap may be covered. Hauling manure in the spring, when it is wet and heavy, and when the roads and fields are easily cut up, when plowing, harrowing, sowing, &c., are all pressing, is a great drawback upon the spring work. Make muck heaps in your fields in December, draw the manure to them, and as often as the frost will permit, mingle them; the muck will absorb the gases from the decomposing manure, while the muck itself will undergo valuable changes from the air and rain, and frost, and make that an important fertilizer.

Farm Implements—should all be put in perfect order, ready for use in the spring; if any need painting, a coat applied now will get hardened through the winter, and thus last twice as long as when applied just before the implement is wanted for use. Every thing of the kind should be placed under cover.

Accounts.—Do not suffer any account to remain unsettled through the month of January. If it cannot be paid, look it over and settle it, so that no questions shall arise upon it afterwards. Keep a cash book. Every one will find it gratifying at the end of the year to know what amount of money he has received, what for, and for what he has paid it out. It is a very simple matter, and requires but little time.

Sheep—should not be allowed to find a living in the pastures too late; some persons suffer them to run until snow covers the ground, without feeding them. Sheep kept in this manner shrink rapidly, and it is difficult to bring them up in flesh again through the whole winter. It is cheaper, and every way better, to keep all our domestic animals in good condition.

Poultry.—It is unprofitable to winter old hens; if such were not marketed in August or September, when they were worth double what they are now, fat them as rapidly as possible, and put them in the pot. When the ground is covered with snow, see that your fowls are provided with plenty of gravel, lime, pounded bones, or oyster shells, and occasionally with scraps, or fresh meat.

Schools.—Every good farmer will take a decided interest in the schools of his town, to see that the building is comfortable and convenient; that a competent, good-dispositioned and faithful teacher is employed, and *fairly remunerated;* to see that all may attend who desire to, and occasionally look in upon the school himself.

Winter Evenings.—Attending Lyceum and the Farmers' Club will occupy two. What is to be done in the other four? Have you read several excellent works that relate particularly to your business? Youatt and Martin on Cattle; and Youatt on the horse, hog and sheep; the American Muck Book, and Dana's Muck Manual; the Complete Farmer and American Gardener, by Fessenden; Johnston's Elements of Agricultural Chemistry and Geology, together with a variety of other books, which record the practice and experience of other men. A perusal of these will increase your knowledge, and enable you to pass the winter evenings pleasantly.

So we come to the close of another revolution of *The Months*, trusting that our suggestions may sometimes have been agreeable, and tending to promote the interest of those who cultivate the land.

COLLECT LEAVES FOR LITTER.

After the harvest is over, and before the snows cover the ground, a day or two spent by the farmer and his hands in collecting the fallen leaves of the forest will be productive of a good store of excellent litter, and the expenses amply repaid. A good collection of such materials is not always made in the fall by those who could do it easily. Indeed, this prudent foresight for litter with which to bed down cattle, horses, and other stock, during the winter, is not sufficiently practised among us. It not only ensures a great amount of comfort to your cattle, by giving them an easy and warm bed, but it saves, indirectly, much fodder, in consequence of the warmth thus obtained—cattle eating much less when they are kept warm and cleanly.

The leaf harvest, then, is one of importance to the farmer, if he will avail himself of it. A calm day or two spent in this business, with his boys and oxen, and hay-rack, will enable him to get together a large pile of these fallen leaves, and if stowed in a dry place, he will experience the good effects of them in the improved condition of his stock, compared with those which are suffered to lie down, and perhaps be *frozen* down, in their own filth. The fertilizing material of leaves also adds essentially to the enriching qualities of the manure heap. Gardeners prize highly a compost made in part of decomposed leaves.

As the leaf harvest is the last harvest of the year, let it be attended to when its time comes.—*Maine Farmer.*

A BAD COLD.

DR. HALL'S WAY OF TREATING IT.

A bad cold, like measles or mumps or other similar ailments, will run its course of about ten days, in spite of what may be done for it, unless remedial means are employed within forty-eight hours of its inception. Many a useful life will be spared to be increasingly useful, by *cutting a cold short off, in the following safe and simple manner.* On the first day of taking a cold, there is a very unpleasant sensation of chilliness. The moment you observe this, go to your room and *stay there;* keep it at such a temperature as will entirely prevent this chilly feeling, even if it requires a hundred degrees of Fahrenheit. In addition, put your feet in water, half leg deep, as hot as you can bear it, adding hot water from time to time for a quarter of an hour, so that the water shall be hotter when you take your feet out than when you put them in it; then dry them thoroughly, and then put on warm, thick woolen stockings, even if it be summer, for summer colds are the most dangerous; and for twenty-four hours eat not an atom of food; but drink as largely as you desire of any kind of warm teas, and at the end of that time, if not sooner, the cold will be *effectually broken, without any medicine whatever.—Me. Farmer.*

For the New England Farmer.

IMPROVEMENT IN BARNS.

Among the many and recent improvements in farming matters, none is more conspicuous than the improvement in the construction of barns.

If a stranger from some remote corner of our land, where these "new-fashioned" barns have not yet made their appearance, should travel through the country, and especially those parts of it which lie in the vicinity of the large town and cities, he would be very likely to conclude that nearly every farmer has an academy or meeting-house upon his premises; and when informed that these tasty buildings are barns, would, perhaps, show you the full dimensions of his eyes, and often exhibiting other signs of astonishment, wish to know the use of the cupolas or steeples which he saw upon their summits. And when told that the cupolas are "ventilators," would, doubtless, open his eyes still wider than before, and exclaim—"Ventilators? What good does a ventilator do upon a barn?" When we consider the manner in which barns were formerly built, we shall not so much wonder at the above question. The boards were put on without "matching" or "halving," and frequently without the use of the jointer, so that in a short time there were cracks wide and numerous enough to thoroughly ventilate the barn, and keep it *cool*, especially in the winter. And in addition to the above method of purifying the atmosphere of the barn, there was usually space enough at the top and bottom of the "great barn-doors," and sometimes between them, to throw out a stray dog without injuring him in the least. The internal part of the barn was likewise arranged in the same convenient style. The narrow "barn-floor" was laid crosswise of the barn, and generally near to one end; a "head-scaffold" covered about one-third of the length of the floor, at the end farthest from the doors; so that when a respectable sized load of hay was driven into it, if there was any hay upon the scaffolds, the load was tightly pressed on each side and the farthest end, the other being "out-doors." A part of the hay, after being jerked from the load, had to be pitched several times over, before it reached its final destination at the farthest end of the barn.

The stables, "lean-to" or byre, hen-roost, &c., were jumbled up together somewhere—the last named place being frequently in the "lean-to" over the necks of the cattle.

The barn-yard was almost invariably in front of the barn, rendering a passage to and from the barn extremely pleasant, especially in a rainy day. Digging a barn-cellar was a piece of folly which very few were guilty of committing in those days. Farmers would as soon have thought of protecting their fruit trees from the effects of the sun and air, by building sheds over them, as of preserving manure from the same *causes*,—the *effects* being different in *toto*,—by digging a cellar to receive it.

But these ill-constructed barns, although too many of them still have an existence, yet, for the most part, have disappeared, and others of a new and much improved style have arisen from their ruins.

The first thing done nowadays towards the creation of a barn, is to dig a cellar. To render the task an easier one, a site is chosen where the ground is somewhat sloping, but if this is impracticable, more digging is necessary, unless the walls of the cellar are raised considerably above the level of the land surrounding it. The excavation for the cellar having been made, it is then walled in upon the two ends and the side next to the bank; the side fronting upon the yard being left open,—although it is afterwards sometimes closed up by a wooden partition with doors and windows.

The frame of the barn is now raised over the cellar, which has been so excavated that one end of the barn will—like fashionable modern houses—front upon the road. The frame is then shingled and boarded, the boards being either "halved" or "matched," but sometimes they are fitted snugly together with the jointer only, the cracks being afterwards covered with narrow strips of boards. This last named method of putting on the boards, although objected to by some, yet, when properly done, makes the barn tight and warm; and when the boards are planed and painted, as they frequently are, gives to the barn a very neat and pretty appearance. Lengthwise, and through the centre of the barn, a space sufficiently wide has been left for a floor, or "drive-way," which can be driven into, or out of, at either end; and which, if occasion required, would contain several loads of hay at the same time, without any *pinching*; affording also, when the golden corn is gathered in, ample room for a merry "husking." The space beneath the scaffolds upon one side of the floor is occupied by the stalls, or stables for the horses and cattle; the other side being reserved for a "bay."

This arrangement of the interior compartments of the barn renders the task of unloading and mowing away hay, feeding and tending the cattle, &c., much easier and more convenient than it used to be formerly. Instead of the old-fashioned, double, loose, swinging, flapping doors, which, besides being inconvenient, rendered a passage into the barn absolutely dangerous in windy weather, unless they were securely fastened, each door, great and small, is now made single, or in one piece, and moves backwards and forwards so easily upon small iron wheels, that a child could with facility open or shut them.

A barn built in this manner is so snug and warm that some method of ventilating and purifying its atmosphere is rendered highly necessary, and accordingly an aperture has been left in the centre of the top of the barn, which is covered by a cupola. In each of the four sides of the cupola, there is an opening, of the shape and size of a small window, into which venetian blinds are fitted and fastened. The cupola is ornamented, if the taste and means of the farmer acquiesce, with panels, mouldings and carvings in the Arabesque, Gothic, or some other style, the whole being painted and surrounded by a gilded vane, balls and letters, to indicate the different points of compass. The gables, doors and windows of the barn are also frequently adorned with pediments; and the eves, or cornices, with wide, handsome mouldings.

A barn built and finished in this style, with its pretty white, or fancy-colored cupola peeping up through the surrounding trees, contrasting beautifully with their green foliage, or with the dark blue sky, presents to the eyes a pleasing spectacle, and is an ornament, not only to the farm upon which it stands, but also to the whole neighborhood and to the adjacent country as far as the barn can be seen.

Although there are many modifications to the above poorly described mode of building barns, yet generally, it is considered the most convenient, and is, therefore, the one which is most frequently adopted.

There is one thing I wish to mention, which some, perhaps, may think unworthy of notice, but which to me, seems otherwise, and will, doubtless, to many others; and this is, that in these new barns no provision is made for the ingress and egress of the poor swallows.

Around these neat, spruce, well-proportioned barns, and their decorated gables and cupolas, the swift, graceful gyrations of the swallow are seldom seen, and beneath their sheltering roofs his merry twitterings are never heard. And why are these barns thus deserted by these sociable little fellows? Simply for the want of a little aperture, round or square, and three or four inches in diameter, in each gable of the barn, just beneath its apex.

In barns built after the old style, "swallow holes" were always to be seen. In some of these barns I have counted twenty nests at one time, all of them being occupied.

A barn swarming with a multitude of such happy, innocent inhabitants, resounds with such flutterings, twitterings and gushing outbursts of song, that it seems as if every one who enters within its precincts, even if he be a confirmed hypocondriac, must forget all his troubles, and feel his heart drawn upwards in praise to Him "to whom alone praise is due," for their cheerful melodies.

If birds possess, as they certainly did in at least one instance,—I refer to the story which appeared in the *Farmer* a short time since, under the title, "Instinct and Affection of Birds," and with which, all who read it were, doubtless, greatly interested,—such strong affection and such wonderful instincts as would almost lead one to suppose that they are endowed with the faculty of reason, it seems to me that they are worthy of our particular regard and protection. And, besides the pleasure we receive from their society, they, and especially the swallows, destroy during their short stay with us an innumerable multitude of insects, which is a fact of no little importance in these insectivorous times.

The above description of barns, both of the old and new style, have been given, not with the supposition that they contain any information for the intelligent readers of the *Farmer*, but that the reader, by comparing them together, may the more clearly perceive the great improvements which have been made within a few years, in these necessary concomitants of the farm.

There is, perhaps, no greater proof of the increasing wealth, knowledge and refinement of the farmer than this reformed method of building barns; and the fact that the farmer is thus increasing in knowledge, refinement and wealth, is a pleasing thought to all who truly feel interested in the happiness and prosperity of this great and glorious republic.

Groton, Oct., 1855. S. L. White.

Every Family should have an Agricultural Paper.—It is worth more than it costs simply for educational purposes. Parents have hardly a right to deprive their families of its advantages in these times. Children will learn more, as they go to and from school, to drive the cows to pasture, or pick berries by the way, if their observation is quickened by what they hear their parents read or talk over from the agricultural papers; and when they form habits of reading for themselves, such reading is both safe and useful. Reader, if your neighbor has no agricultural paper, persuade him to take one. Even if he is poor, he can better afford to take one than to do without it: for if he takes one, his children will be likely to be better off—to make a good home for themselves, and it may be for him in old age. Not all will have farms; but all will need to know something of the garden and orchard at least; and we advise no parent, who feels that he may sometime be dependent upon his children, to bring them up without the means of instruction in rural economy. It should be regarded as essential in the education of any child, male or female.—*American Cotton Planter.*

SEEDS.

This is the season for the preservation of many of the seed which are to start future crops, and too much care can scarcely be exercised in the selection and disposition of them. If we desire early and perfect crops, we must begin them with the best seeds, and these can only be obtained by careful discrimination and preservation. They should be kept from moist places, and on the other hand not so dry as to shrivel and nearly bake them. Every farmer and gardener should have his seed drawers, conveniently arranged, and always ready for use.

Seeds constitute the ultimate production of plants. In shape as well as specific qualities they are widely and wonderfully diversified. While some are enveloped in a soft pultaceous substance, which easily decays, and allows the germ to expand, others are confined within involucres almost rivalling in their hardness and indistructibility, the most indurated mineral. In others we find the germinating principle protected only by a membranous integument, as in the case of the common garden pea. The seeds of some plants vegetate only in moist soil; others, of the aquatic sort, only in water; while a third class, require neither soil nor water, but develop in the open air. The latter are denominated aerial, to distinguish them from the terrene and aquatic orders, and are very numerous, but less so than the terrene or earthy kinds. The powers of prolification possessed by some species of vegetables, is truly astonishing. The thistle, for instance, produces an immense number of seeds, and these, owing to the villous or downy coating with which nature has endowed them, are so buoyant that they are commonly disseminated over vast extents of surface, broadcast, by the August winds. The same is true of the seeds of the dandelion, and many other weeds. The seeds of the locust, oak, walnut, chestnut, and other similar trees, are larger and more ponderous, and consequently are never diffused in this way; they require to be transported and planted by hand. The seed of the locust, is enveloped in a shelly integument of such exceeding hardness, that it can only be made to germinate by the application of the most scrupulous care. Some seeds are found to be capable of resisting the organic action of the stomachs of birds, and are thus conveyed and voided by them, without experiencing any detriment therefrom. Plants indigenous to one section are thus frequently found in places far remote—on promontories and the distant islands of the sea. Water, also, furnishes to many a vehicle of transportation, as well as the feathery coats of birds of passage, and the hair of graminivorous and carnivorous animals.

A YOUNG FARMER.

The old adage, "*Never too old to learn*," has been thrown a century behind the present age, by the following letter, received by the editors of the *New England Farmer*:

"GENT.:—I am six years old; I send you $1.00 for the *N. E. Farmer, Monthly*.

"Yours, J. S.

New Market, N. H., Jan. 13, 1855."

If we could hope to receive one such letter during the year, we would labor with redoubled energy in the cause of agriculture. Where are the boys and girls of the South, who intend to be happy and prosperous in the exhibition of a life of industrious thrift, enterprise and frugal enjoyment? Where are the young men who are to fill the places of our staunch, planting population, who are now enriching the country by their labors? Labor, preparation, study, and an acquaintance with the details of practical life, must all be learned properly, before you are worthy to step into their shoes. It requires years of patient observance to fit you for the task. The operation of plowing, alone, will repuire experience and practice, to enable the planter to excel in it; and, unfortunately, *where to plow, when to plow*, and *how to plow*, are matters not to be learned in our high schools and colleges. So with all other departments of agricultual life. A young man of good education, when he commences agriculture as a calling, finds that he has to commence the study also, and his after life is spent in acquiring what he might have profitably learned under a proper system of agricultural education. If nine-tenths of our sons are to be planters, let them have primary educations to fit them for the pursuit. If planting is to be a *lottery of practice*—as it has ever been at the South—we might as well desist from our recommendations. But it must not be. We must still strive on, and if there is no proper system of Agricultural education provided for the people, we must make our journals travelling schoolmasters of the great science which feeds the hungry and clothes the naked.

For the New England Farmer.

A THRIFTY PIG.

MR. EDITOR:—Mr. George H. Floyd, of this town, purchased a pig on the 7th of July last, whose live weight was 173 lbs. He slaughtered it on the 16th ot October. It weighed when dressed 342 lbs. Now suppose we deduct 2-5 of the live weight when bought, (2-5 I believe is the usual amount allowed to waste in dressing,) it would leave 103 lbs. which would have been dead weight when bought. Now for the gain, which is 239 lbs., or 2⅓ lbs. per day. C.

Fremont, N. H., Oct. 20, 1855.

For the New England Farmer

HAWAIIAN AGRICULTURE.

MAKAWAO MAUI, HAWAIIAN ISLANDS,
MARCH 20, 1855.

EDITORS OF NEW ENGLAND FARMER:—Gentlemen,—Till you shall have some other and an abler correspondent at the islands, I may not neglect to give you the news of the day.

You see, gentlemen, that the Sandwich Islands are not yet annexed to the United States, and I may add there is no likelihood that they will soon be annexed. I mention this as an item of news, which I think you may rely upon, and which I hope may exclude from nearly all the papers which from the United States reach the islands, items respecting the islands to this amount, that they are about to be annexed—negotiations all finished—the king ready, merely waiting the return of the Prince Liholiho from the windward in order to sign the treaty of annexation. I took the liberty of doubting the correctness of these statements when I first saw them; who made them is not exactly known, and there is now no need of inquiring. Whatever the late king, Kamehameha III., might have said encouragingly on the subject, he did not affix his name to a treaty of annexation, and death put a stop to his design of so doing, if he had such design. He died about the middle of December, and the same day Liholiho was proclaimed king, under the title of Kamehameha IV. and in a few days he was crowned, with much display of loyalty. The address of the young King, both to his own people and to foreigners, was sensible and good. Of course, no one expects annexation at present. No one speaks of it. No doubt many are greatly disappointed that the plan has failed, and the more so on account of the high hopes which have been raised by reading what they regarded as official statements on the subject of annexation. Do you inquire who would be benefited by such a scheme? No one would really be so, in my opinion, though a small class, I admit, would make money faster somewhat than they now do. The sugar planters compose this class. The duties which they now pay at California on their sugar and syrup, causes them to complain, and they are earnest advocates for annexation. Ten foreigners, however, would be injured, in my opinion, by the measure, where one would be benefited. I learn lately that about the time of the king's death, there were several gentlemen at Honolulu from California, who came down, it is thought, expecting that annexation was about to take place. The death of the king put an end to their expectations of this sort, and they have returned to San Francisco.

I claim, gentlemen, to be a cordial friend of my own native country, and none the less so because I am a friend of this my adopted one. I wish well to foreigners on these shores. I pray for their highest prosperity. As many of them as desire to settle on the islands, and are willing to become peaceful and law-abiding citizens, I rejoice to see among us; especially should I rejoice to see an increasing number of agriculturists, practical farmers, who should fence their lands, build barns, corn-houses, raise wheat, oats, corn, beans, barley, garden vegetables; feed stock, cattle, sheep, swine, &c., and fill their gardens with fruit trees of all kinds. They might not become *rich* in a year; they might not in five or in ten, but they would obtain a comfortable living, and their gains would be *sure* though slow. And is not this as God would have it? Why should a man, any man, become rich in a day? This is not God's plan of bestowing riches, judging from the analogy of His works. Look at the oak, the product of His hand. In favorable circumstances it has become a lofty, a majestic tree, with deeply-buried roots and wide-spreading branches, which has withstood the storms and blasts of a hundred winters. It is a model of strength and beauty. But who does not know that this majestic tree of the forest gained this proud eminence by a slow, almost imperceptible growth? So in the intellectual world. The giant Newton, whose discoveries astonished the world, and whose name makes one proud of belonging to the same species, had once the mind of an infant, unoccupied and imbecile. He became what he was according to his own declaration, by a course of indomitable industry. So of others of like pursuits and of towering intellect. To industry and application is the world indebted, not to something called genius, for her good and renowned and useful men and women. And why in seeking wealth should not men be content to grow rich slowly? Why not be satisfied with moderate gains? Such gains are incomparably more safe to every one, more satisfactory to all reasonable men. Such were the gains of most men of my early acquaintance in New England—farmers and mechanics of country towns. I do not say that many of these would not have been glad of quicker and larger returns, of more rapid gains, though most of them appeared contented and happy in making the ends of the year, as they used to express themselves, fairly meet; especially, could they lay by a small sum at the end of the year. Even the merchants of those days were content with a small per centage on their goods. Small gains with much business was regarded as the most desirable method of conducting trade.

But these notions are regarded among us at the islands as antiquated, far behind this age of progress. Not only do most, not to say *all*, who from foreign lands come hither to do business, mean to become rich, but they design to become so at once. Slow gains will not answer their turn; such gains they could have secured at home. Why should they come thousands of miles, and deny themselves of the comforts of civilized society, merely to make a few hundred dollars per year? I do not say that many of these men use this precise language, though some have employed even stronger language, but the language of their conduct reads thus, if I have skill in reading it. Hence the few who engage in agricultural pursuits, or in other manual labor departments. The gains are too slow. The raising of wheat and corn, of potatoes, beans, &c., will do well enough for plodders, but we must adopt other plans, engage in more lucrative employments. Hence the few farmers, the lean markets, the importation of flour, bread, meat, &c. Hence the multiplication of merchants or rather store-keepers; the number of candidates for government employments, the increase of speculators—anything to make money, to secure quick returns. This is the great obstacle to Hawaiian prosperity. This keeps us poor more than anything else. This was the cause, as I informed you at the time of the heavy failures of 1851. Had the men who then failed been content with small gains they would have avoided this catastrophe—would have avoided the blow which has crippled them perhaps for life. But as some are more successful, fortunate they term it, and turn their speculations to a good account, the spirit still survives. When will men learn that the history of Jonah's gourd is one full of instruction. It came up in a night, was of marvellous rapid growth, spreading its shade over the head of the fainting prophet, and making him very glad of its cooling influence; just as the wealth of some speculator flows in like a mighty stream, carrying all before it, and fairly turning the head of the fortunate man. But look again at the gourd. "It perished in a night," leaving the poor prophet more unhappy than he was before the creation of the shade which he now mourns. If it is not thus with innumerable speculators, then I am greatly mistaken. Let men of all classes be content with the slow but more sure gains of industry, rather than eager for the quick returns of speculation, never safe, oftentimes criminal, and commonly injurious in their influence on communities. I will only add that the amount of wheat sown in this neighborhood is about the same as last year, say 1200 acres. The wheat is now promising.

Very truly your friend and fellow-laborer,

J. S. Green.

For the New England Farmer.

POTATOES FOR PLANTING.

Mr. Editor:—I am an advocate for small potatoes for planting purposes. Not but that large ones are not as good, and perhaps better; yet on the whole, I am in favor of small potatoes. The argument, that small potatoes will produce small potatoes is not supported by facts. It appears to me that the application which writers on the other side of the question make of the axiom, "Like produces like," is sophistical, that it does not touch the question under consideration. Potatoes will produce potatoes, corn, corn, &c.; but it does not follow that a small potato will produce smoll potatoes. I am rather inclined to believe that the advocates for large potatoes for seed, are rather apt to try small culture as well as small potatoes, when they make experiments that way. Permit me to give my experience in relation to small potatoes as seed potatoes.

I am a mechanic, and cultivate only a small garden; it is, therefore, for my interest to produce as much as I can on a small space; my garden consisted of ten square rods in 1853-4, and this year there were two rods more added. Of this, I have planted some two-thirds to potatoes. In 1853, I planted with a mixture of large and small potatoes, and in October dug nearly six bushels, large and small, besides what my family used through the summer; from these I took all the small ones for the next year's planting; there were none larger than a good-sized plum, and many were smaller. In 1854 I planted these potatoes, and dug in the fall eight bushels of good-sized potatoes, besides the small and what were used in my family before digging time. This year I planted the small of last year's raising, and having finished digging, I find, besides what were used before digging, that I have 115 bushels in all, which makes about 250 bushels per acre. I think, considering the effects of the drought in this region, this gives a good result in favor of small potatoes. The manure which I used was ashes mixed with night-soil and the collection of a sink-drain. Yours, &c. H.

East Bridgewater, Oct. 22.

RAIN FROM THE ROOFS.

In our climate, when rain water is most needed, for washing, for cattle, and for watering plants, it is not to be had. There is a sufficient quantity falls, however, unless in seasons of extreme drought, to give every farmer a full supply, if he had the proper reservoirs for holding it. These may be made much more readily and cheaply, than most people believe they can be. On any soil but a very sandy one, the earth may be removed, and the sides and bottom cemented without brick or stone, and the top covered with chestnut plank, and any amount of rain water preserved. If slanted outward half an inch to one inch to each foot in height, and well cemented, a cistern will last for many years. Such cisterns would be a matter of economy to many of our farmers.

We find a paragraph in the papers which has suggested these remarks, stating that "every inch of rain that falls on a roof yields two barrels to every space ten feet square; and seventy-two barrels are yielded by the annual rain in this climate on a similar surface. A barn thirty by forty feet yields annually eight hundred and sixty-four barrels; this is enough for more than two barrels a day for every day in the year. Many of our landlords have, however, at least five times that amount of roofing on their dwellings and other buildings, yielding annually more than four thousand barrels of rain water; or about twelve barrels, or about one hundred and fifty ordinary pailsfull daily.

CHARCOAL FOR WHEAT.

There are many instances on record, going most conclusively to demonstrate the very high value of charcoal as a manure for wheat. We scarcely, indeed, take up an agricultural publication in which its efficiency, as a stimulant, is not rendered apparent by the most convincing and undeniable facts. A late writer in the *Lewisburg Chronicle*, in some remarks upon this subject, says:—"A few days since, in company with Mr. Jacob Dorr, of East Buffalo, I visited a spot on the land of my brother, John Dorr, on which the excellent effects of charcoal were plainly visible. Before reaching the spot, I noticed the beautiful bright green of the wheat in the lower part of the field, even at this season—the dead of winter—and remarked to Mr. Dorr, that that must be the spot. He stated that he had not visited it for a number of years, but was under the impression that it was higher up the field. When we arrived at the spot of beautiful green wheat, we found, indeed, that it was the locality of the charcoal. In some places the soil was black with the coal, and the wheat plants were very large and healthy. Their appearance is very fine, and they can be seen from all parts of the field, so superior are they to those surrounding them." It appears from the communication, that some fifty or sixty years ago, a blacksmith shop occupied this spot and near it there was a coal pit. This accounts for the presence of the coal, but not for the continued and undiminished fertility and suprising productiveness of the soil enriched by it.

But it is well known to many of your readers, no doubt, that charcoal is, in its nature, nearly indestructible. It remains in the soil for generations without scarcely any perceptible change or alteration, and when applied in large quantities, as a stimulant of vegetable life, acts from year to year, and even from generation to generation, without any obviously apparent diminution of energy or effect.—*Fountain and Journal.*

SALT FOR ANIMALS.

Professor Simonds, Veterinary Inspector to the Royal Agricultural Society, observes, in relation to the action of salt on the animal economy, that "it is exceedingly beneficial in moderate quantities, but prejudicial in large ones." He thought horses might take with advantage from an ounce and a half to two ounces of salt daily; but that an excess of it would render animals weak, debilitated and unfit for exertion. Similar facts were applicable also to oxen, which accumulate flesh faster by the judicious use of salt, than without it. He cited Arthur Young, and Sir John Sinclair, to show that salt had a tendency to prevent the rot in sheep. Prof. S. added as his own opinion, that salt, by its action on the liver, and the supply of soda it yielded to the bile, led to a greater amount of nutriment being derived from the food. The substance, he said, was also well known as a vermifuge, destroying many kinds of worms in the intestines of animals, and conferring a healthy tone of action which prevented their re-occurrence. Several members of the R. A. Society, as Col. Challoner, and Mr. Fisher Hobbs, stated that their experience led them to agree with Prof. Simonds in regard to the value of salt for animals. In reference to the mode of giving it, the practice of placing large lumps of rock salt in fields or yards, where it was accessible to the stock, was mentioned with approbation. This practice is now adopted by many farmers in this country, and after several years' trial, is preferred to the former mode of giving salt periodically. When animals are only allowed to have salt once or twice a week, it is sometimes the case that they eat too much at once, but by having it constantly in their reach, they eat such quantities as their systems require, and it assists the digestion, and promotes health and thrift.

SANATORY SUBSTANCES.

As the warm weather is now at hand, it will no doubt be very useful information to many persons to be told what are the best substances for removing offensive odors from sinks, &c. Copperas, or sulphate of iron, is a very excellent substance for slushing drains and sinks. By dissolving half a pound of it in a pail of hot water, and throwing it into a sink once per week, it will remove all offensive odor; and from the situations of many houses in all our cities, it would greatly tend to health and pleasure for the inhabitants of each to do this. The chloride of lime, or the chloride of zinc, will answer just as well, but these are expensive substances in comparison with copperas (sulphate of iron.) Lime is also very useful, and is, no doubt, a cheap deodorizer, but it is not a very good one; copperas, therefore, is preferable to all these substances.

But there is another substance which is far superior to either copperas, the chloride of lime, or zinc, as a deodorizer, both as it respects its qualities and economy; we mean charcoal powder—made of ground wood charcoal. Charcoal powder possesses the quality of absorbing ammoniacal, sulphuretted hydrogen and carbonic acid gases in superior degree to any other substance. Placed in the vicinity, or spread among decaying animal or vegetable matters, it absorbs all the offensive and hurtful gases, and keeps the air sweet and wholesome.

We really hope that charcoal powder will soon come into extensive use as a deodorizer and disinfectant. It appears to us that it can be ground in mills in the timber regions where wood is cheap, transported to our cities, and sold at a very moderate price. We are convinced that a plentiful use of fresh ground wood charcoal for sinks, damp floors and the drains of cellars, would greatly tend to prevent disease in many places, by the absorption of miasma.—*Scientific American.*

For the New England Farmer.

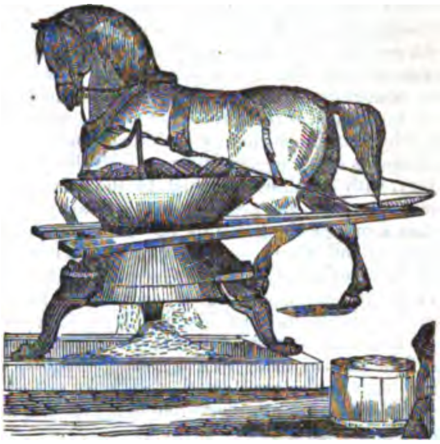
CONCORD FARMERS' CLUB.

This Institution held its annual meeting on Thursday evening, Nov. 1, at the house of Dr. J. Reynolds. Simon Brown was elected President, Jos. D. Brown, Vice President; Minot Pratt, Secretary; W. T. Farrar, Treasurer. There was a full attendance, and the members came together with the right spirit, determined to give a new impulse to this Institution, which has already done so much to promote agriculture and horticulture in this town. Several committees were appointed, and among others, a committee to correspond with Farmers' Clubs in the neighboring towns, with a view to an interchange of visits, by means of delegates, during the ensuing winter. It was believed by the members that such a reciprocation of visits will add interest to our own meetings, and to those of other Clubs. The subject of a mass meeting of farmers and horticulturists, to be held in this town, sometime during the winter, was discussed. We hope such a meeting will be held. Such meetings, if properly conducted, are not only very interesting, but very useful.

Men of all other occupations, merchants, mechanics, professional men, meet, and become acquainted with each other, interchange views and concert measures to promote their respective interests, and why should not those who cultivate the earth? There is no occupation which such measures will more directly benefit than that of agriculture.

We hope this proposition will be received with favor by the farmers of Middlesex. The meeting held in this town two years ago was eminently successful. We should be glad to see such a meeting held in every county in the State during the coming winter. They would do more to promote the cause of agriculture, and to place farmers in the position they ought to occupy, than any other measure that could be adopted. In this connection, permit me to remark, that I hope the farmers in all our country towns will interest themselves in the organization of lyceums, and secure two or three good lecturers on agricultural subjects, during their respective courses. Agriculture is taking a prominent place in the literature and science of the country, and should be recognized and receive its due share of attention in our lyceums where such subjects are discussed. Yours truly, J. R.

SCOTT'S LITTLE GIANT CORN AND COB MILL.



This is the name of a verv efficient grinding apparatus, for using with one or two horses. Its weight is 300 to 800 lbs., according to its size, and it can be easily adjusted and put in running order. The patentee warrants it to grind feed from oats, corn on the ear, &c., and to make grits, or fine hominy from shelled corn, with a degree of ease and convenience never attained before.

Judging from the popularity of this mill in Ohio, Kentucky, aud other stock-raising States, where more than six thousand of them are in use, it must have been found a valuable adjunct to the farmer in the saving of labor and expense. The patentee claims for it the merit of "a peculiar, improved arrangement, by which it first breaks, then crushes and crumbles the cob at the centre of the mill, thus lessening the strain upon both mill and team, the chief work of crushing being thrown upon the central parts by a judicious application of the leverage power." Messrs. Parker, White & Gannett are the patentee's agents in this city.

SHEEP HUSBANDRY IN MASSACHUSETTS.

The great diminution of sheep husbandry in this State is very much to be deplored; it is a striking indication of deterioration and decay in our agriculture, unless we find that something more profitable has taken its place. We shall look, however, in vain for anything of the kind; every sheep, therefore, lost from the census of 1850, as compared with that of 1840, is a dead loss to the agricultural wealth of the State. Sheep are the most active and profitable agents in the work of amelioration and farm improvement. Valuable as fertilizers when folded, they likewise improve and renovate pasture lands, brought as ours have been by neglect to a state bordering upon non-productiveness.

Two objections are commonly made to keeping sheep, one is that they are difficult of restraint, and the other that they are very liable to be worried and destroyed by dogs. With regard to the first objection, it may be said that there are breeds of sheep so docile and quiet, that they only require the usual fences to keep them within bounds. The second objection is a much more serious one, because we have not the remedy in our own hands, unless we keep constantly on the watch against trespassers. Our agricultural towns, however, can aid the farmer very much in this matter. There is no more reason why they should not prohibit dogs from running at large, as cattle or any other animals liable to do injury, with penalties attached to the infraction of any law passed for preventing this measure, as to insure a proper obedience to it. In many parts of Rhode Island, where sheep husbandry has increased very much of late, the farmers have united together to keep off dogs, allowing no person to go over their land if accompanied by one. Many suffer their dogs to roam about, or to be their companions in the field and the road, from inconsiderateness, and when once they come to know the injury caused by them, they are quite ready to join in preventing it.—*Mr. Fay's Address.*

WORKING COWS.

Were the question submitted to us—"Why should not the cow be subjected to the yoke, as well as the ox?" the only reply, probably, we should be able to make, would be the very insufficient one, that popular custom is averse to, and would not sanction it. Prejudice often goes a great way, in such matters, even with the best informed. In this country the cow has rarely been subjected to labor of any kind; yet in other countries the case is different. In Spain and Great Britain, she is made to labor, both on the farm and on the road, and is said to be not only quicker but more tractable than the ox. One of our writers, who appears to have investigated this subject with considerable industry, remarks:—"We have no doubt that many farmers who do not want cattle for travelling much on the road, will find an advantage in working cows. As this custom is not common among us, it would be at once opposed by many as inconsistent, and unreasonable. In this respect it would be like many other improvements. There was a time when many farmers thought the only method to dispose of a large quantity of apples, was to work hard in the fall and fill up their cellars with cider, and then work hard in the winter to drink it up. They would have laughed at the thought of wintering hogs in a thriving condition, or fattening them mostly on apples; but experience has taught them that apples are valuable for making pork, and that much cider-drinking is attended with trouble and expense, and is injurious to health; and had we time, we would show that many other improvements, when first introduced, were regarded as changes for the worse."

Another, adopting the same views, says:—"Why cannot cows work as well as mares that are with foal, or have to nourish offspring? Mares, without injury to themselves or their young, perform considerable labor till within a month or two of their foaling; and they again labor within a few weeks after that time, and with kind and gentle treatment, and good keeping, they and their colts are better than they would be, if they were entirely idle. Look at animals through the wide creation, and see how few among them are idle mothers! Exercise is conducive to health and strength; and every animal, four-legged, as well as two-legged, ought to take, at least, moderate exercise, as it is conducive to their comfort."

In this connection we present the following account of an experiment, made some years since, by an intelligent "Yankee Farmer," who had found the expense of keeping a yoke of oxen on a small farm somewhat more *debilitating*, in a pecuniary sense, than his conceptions of strict economy induced him to regard advisable. He commenced working his cows in 1836, in the spring, using a pair of cows that had calved the previous January. They were four years old and of a large size. He did all his plowing and other spring work with them, working them almost every day. During this time they continued to give a good mess of milk, and he was unable to discover that their labor occasioned any skrimpage, except on a couple of days when a young colt, which was under process of "*breaking*" was worked before them, and occasioned them unusual fatigue. In the summer he hauled his hay with them, and was not aware that they failed in any respect to do as well as oxen. During the winter, which was remarkable for its severity, and the depth of the frequent snows, they were used for breaking roads, and not unfrequently got so deeply into the drifts, as to render it necessary to relieve them by shovelling. They were not, however, in the slightest degree injured, and calved the following April.

The subsequent autumn, he worked an additional yoke, making a team of four cows. With these he did all his plowing, breaking green-sward, during thirteen or fourteen days, besides plowing his corn and potato lands.

His hay was again housed by them, and in the fall they harvested his crops, and were employed very constantly till a late period in hauling wood, rocks, &c. Their food was straw, turnips and hay. It is his opinion that cows, properly subjected to the yoke, are quicker and smarter than oxen, and will perform more labor, according to their size, if kept in good condition.

They are also less difficult to break, he says, than steers, as all except one were perfectly mild and kind after the third day. In this case the keeping was no doubt good, as it should always be when these useful animals are subjected to the yoke.

When cows are made to labor, care and kindness are of the greatest importance. On this subject, a writer very truly remarks:—"Every animal should be treated with kindness, but harsh treatment of oxen would not be attended with so much injury, as it would with cows. One of these cows is partly, and if we recollect right, mostly of the Durham short-horned breed; she is an excellent worker and a good milch cow. Another farmer informs us that he knew of two cows being worked as regularly as oxen, and worked hard too, from the time they were calves, till they were six or seven years old, and they were of a large size and very handsome. He understood that they gave a good mess of milk when well kept."

Persons having had opportunities of observing the action of these animals, when subjected to labor on the road, have been surprised by the singular docility and mildness they evinced, and the alacrity with which they obeyed the commands, and even the motions of the driver.

On the small farms in Massachusetts, and especially near the cities, where the making of milk is the principal object, it is important to dispense with oxen. A horse or two we must have to go to market, meeting or mill, and with a horse and two or four cows, all the work of such farms may be conveniently performed. These suggestions may seem to some as of little value, but there certainly can be no harm in a consideration of the subject.

For the New England Farmer.

CLIFF SWALLOWS.

Friend Brown:—Knowing that anything relating to birds is interesting to you, I propose to add my mite in relation to swallows. Late in June, last summer, six or eight of the cliff swallows came to my open shed, where I keep my wagon, cart, &c., and built a nest in a very short time, say three or four days. In as short time as possible the old bird was sitting.. Soon, another pair came and went to work at their leisure, taking their own time to do their work. After the first nest of eggs were hatched, and the young had nearly attained their growth, we found the nest and young birds all on the ground, and the old birds missing. Wishing to get a settlement of these birds around my buildings, I set my wits to work to save them. I went and found a second-hand robins' nest, drove up some nails, put up the nest, put in the young birds, and the old ones came and took care of them, and put on another story, and trained their young until they were able to fly. The second nest fell down just as the young ones were able to fly.

Now the reason why I write this, is to make a few suggestions to those who like to have those swallows about their premises; and I would say that I have never known them to build on new buildings; and, also, when they come and look about and stick on a little mud and commence operations, that if you put up anything to help them, they are sure to leave for the season. Now to try to accommodate them, I have lately put up some old dirty strips of board in the places where for several years they have made unsuccessful attempts to locate themselves, and if any happen to see this and wish to get a colony of swallows, I wish they would try my experiment.

B. F. Cutter.

Pelham, N. H., Oct., 1855.

CRUMBLING BONES IN ASHES.

Having seen in the *Farmer* a short time since a communication from friend E. G. B., of Yarmouth, concerning his "bones," in which he complains that his bones, though packed away last April (I believe, for I have not the paper at hand,) will not soften; let me give him a bit of my own experience.

A year ago last March, I saw a statement in the *Dollar Newspaper*, that bones treated as friend B. has treated his, would decompose and make good manure. Accordingly I took a barrel and put in ashes three or four inches deep, then a layer of bones, and covered them with ashes. It was then wet with urine from day to day, till I supposed the ashes was completely saturated with the liquid. Then another layer of bones was added, and covered as before, and wet with the same liquid. This process was repeated till the barrel was full, and then left undisturbed till the last of May, when it was dug out to be used, and the bones were found to be soft enough to be cut with a shovel, except a few jaw-bones and teeth, which seemed to be proof against the leech, in a great measure. I have now Ruta Bagas growing on the mixture. It was put in the drills and covered about four inches; I supposed it might be rather strong, and buried it accordingly. Within a week or two those Bagas looked as if they had got hold of something that agreed with them.

If E. G. B. will give his bones time, I think there will be no trouble about there becoming soft enough to be picked to pieces with the fingers, as the most of mine were. But mine were in pickle nearly 13 months, instead of 3 or 4, as friend B. says his have been. Whether soap suds would be more effectual than urine, or less so, is a problem to be solved by some one who is more of a chemist than myself. I used the urine in order to save it, as my faith in the softening of the bones was like a "small grain of mustard seed." From present appearance the mixture is a very powerful fertilizer for Ruta Bagas at least. To be patient, friend B., let them soak till next spring and then try it on some of your crops, and let us know the result of your experiments.

S.

North Yarmouth, Aug. 6, 1855.

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Note.—We like the suggestions contained in the above communication. The course proposed will make a rare combination of fertilizing materials, and a hogshead or vat near the out-house of every house-keeper filled as directed, will become useful in more ways than one.—*Ed. Maine Farmer.*

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We copy the above from the *Maine Farmer*, and highly approve of the plan recommended for such localities as can furnish unleached wood ashes, and where sulpheric acid cannot be procured—but when sulphuric acid can be bought at 3 cents per pound, or less, and not ashes, should be used to decompose bones. The bones may be thus prepared:—Mix bones and brush together, then set fire to the brush, which, if the quantity of brush be not too large, will carbonize the bones on their surfaces alone, and thus render them friable, so as to be easily broken. When broken they are then ready for treatment with sulphuric acid, thus:—Stand a hogshead on end, take out the upper head, trim off the edge of this head and bore a few augur-holes, of a half-inch or more in diameter, through it, place a few stones or bricks on the bottom head, and on these place the upper head prepared as above—then throw in 100 gallons of water, and 5 to 10 gallons of sulphuric acid, stirring the water briskly to prevent the acid falling to the bottom; then throw in the burnt bones, stirring the mass each day for a week, after which the dissolved portion of the bones may be drawn from the bottom and thrown over any compost, or applied in the fluid form dilute, direct to the land. Masses of earth or charcoal dust may be witted with it, and then scattered like ashes or other finely divided manure. More bones and acid may from time to time be added to the hogshead, taking care always to have more bones than the acid will dissolve. One bushel of bones, so prepared, will be more effective on the crops of the first five years, than ten bushels treated with ashes.—*Working Farmer.*

HOW TO GROW GOOD FRUIT.

There is still large quantities of fruit cultivated that is not worth taking to market. Hundreds of bushels of apples have been made into execrable pies in Boston this fall, merely because they could be purchased at a trifle less cost than those of a better quality. But it is a mistaken economy, as a mild, good-flavored apple would require less sugar and then make a better pie. Many persons have a pride in, and attach too much consequence to an apple which sprang up spontaneously on their own farm, or, perhaps, which they have cultivated with some care, and then numbers of seedlings occupy the places that should be improved by finer varieties, and which, if cultivated, would afford a greater profit.

The New York *Tribune* brings to notice the following:—

> Just see how easy it is to grow better fruit. In Adams county, Ohio, John Loughry has a peach orchard of eleven acres that has yielded him this year five thousand dollars, while peaches have been selling in Cincinnati at twenty-five cents a bushel. It is easy to see that his orchard would not have produced that sum at that price. No, it did not. He got two dollars a bushel more readily than his neighbor got twenty-five cents for the same variety of peaches. And this is how he did it:—
>
> "When the peaches had arrived at the size of a hickory nut, he employed a large force and put on one hundred and eighty-five days' work in picking off the excess of fruit. Probably more than three-fourths of the fruit then on the trees was carefully removed. Each limb was taken *by hand*, and where within a space of eighteen inches there would be, perhaps, twenty-five peaches, but five of the fairest ones would be left to ripen. By carefully removing all but the strongest specimens and throwing all the vigor of the trees into them, the peaches have ripened early, and are remarkable for size and excellence of quality."
>
> There, this was labor—seven months' labor of one man in a small peach orchard! What of it? His net profits were between three and four thousand dollars. If he had neglected his trees his profits would have been a crop of peaches hardly fit to feed the pigs.
>
> In the management of his trees, Mr. Loughry keeps them trimmed in, and annually removes about one-half the wood that is formed. He uses a compost, and omits nothing to bring them to perfection, and thus keeps the trees in full vigor. Will other farmers take a hint and follow so good an example?

For the New England Farmer.

TETE-A-TETE OF THE MILKMAIDS.

BY "ANGELINA ABIGAIL."

Becky, see the sunset glowing,
O'er the fields a radiance throwing,
  Golden, pure and steady;
O, its beams illume my spirit.
(That's our cow-bell—don't you hear it?
  Get the milk-pans ready!).

Yes, dear Sally, look and listen!
Now the dew begins to glisten—
  Hark! the night-bird's sonnet!
What a balmy breeze is blowing!
(Head the brindle cow—she's going—
  Run—I'll hold your bonnet!)

Becky, does the twilight hour,
By its bland and soothing power,
  With sweet musings fill you?
Peace hangs round us like a mantle—
(Soh now, Sukey, come, be gentle!
  Stop that kicking, will you?)

With music earth is overflowing—
There, the hungry calves are lowing!
  How those tins do rattle!
But I fain would wander, Sally,
To some green and quiet valley,
  Minus horned cattle.

Becky, life's a fleeting hour;
Joy brings grief—e'en cream will sour—
  Yet 'tis vain complaining;
Mortals now get milk and honey
Only by hard work and money!
  (Set the pans for straining!)

REGULARITY IN FEEDING CATTLE.

Stephens, in his "Book of the Farm," gives the following illustration of the necessity of regularity and method of agricultural duties:

> In thus minutely detailing the duties of the cattle-man, my object has been to show you rather how the turnips and fodder should be distributed relatively than absolutely; but whatever hour and minute the cattle-man finds, from experience, he can devote to each portion of his work, you should see that he performs *the same operation at the same time every day*. By paying strict attention to time the cattle will be ready for and expect their wonted meals at the appointed times, and will not complain until they arrive. Complaints from his stock should be distressing to every farmer's ears, for he may be assured they will not complain until they feel hunger and if allowed to hunger, they will not only lose condition, but render themselves, by discontent, less capable of acquiring it when the food happens to be fully given. Wherever you hear lowings from cattle, you may safely conclude that matters are conducted there in an irregular manner. The cattle-man's rule is a simple one, and easily remembered, —*Give food and fodder to cattle at fixed times, and dispense them in a fixed routine.* I had a striking instance of the bad effects of irregular attention

to cattle. An old staid laborer was appointed to take charge of cattle, and was quite able and willing to undertake the task. He got his own way at first, as I had observed many laboring men display great ingenuity in arranging their work. Lowings were soon heard from the stock in all quarters, both in and out of doors, which intimated the want of regularity in the cattle-man; whilst the poor creature himself was constantly in a state of bustle and uneasiness. To put an end to this disorderly state of things, I apportioned his entire day's work by his own watch; and on implicitly following the plan he not only soon satisfied the wants of every animal committed to his charge, but had abundant leisure to lend a hand to anything that required his temporary assistance. His old heart overflowed with gratitude when he found the way of making all his creatures happy, and his kindness to them was so undeviating, they would have done whatever he liked.

TREE PLANTING.

We notice among the munificent bequests of Elliott Cressen, a legacy of $5,000 to be employed in planting trees in Philadelphia. There is something touching in this gift. It is fragrant of good taste and friendly feeling. It seems to express gratitude for the comforting shade of some old tree under which the weary philanthropist had meditated his schemes of usefulness; and of considerate interest for the health and pleasure of future generations, who are to people the city of his birth. And when monuments of marble and of bronze shall crumble, the broad arms of the elm and the oak shall stand out against the sky as the befitting memento of the liberality and the last of the tree-loving Philadelphian.

Every one should plant trees. No object is more beautiful than a spreading elm, or a lively evergreen; none more productive than the apple or the luscious pear. Half the labor bestowed on a single crop of potatoes, would originate an orchard, the product of which in a few years would be equal in value annually, to the potato crop, yet with but little labor beyond the harvesting. A fortnight's toil in the spring or autumn, in transplanting choice fruit-trees to the roadside, or tastefully grouping them on the lawn, will ultimately add more to the value of the place than twice the time employed in building or fencing. For their own comfort, for the sake of their descendants, for the taste and improvement of the country, plant trees—let everybody plant trees.

That bald, naked church. tasteless, treeless! Who will have compassion on the worshippers, and surround it with trees? That district school-house, bare and unsightly; who will interest the boys in planting and protecting shrubs and trees that will make it an attractive and beautiful spot? Those verdureless villages, with their houses thrust upon the street—who will distribute honey-suckles, and Virginia creepers and prairie roses, that they may be turned into civilized habitations?

There is a softening, humanizing influence in horticulture and tree-planting, that we could wish were more general. There is too much danger of the gross and sensual and selfish in our national character; and while our reliance must be on religious and educational influences to correct this tendency, we believe that good and only good would come of the love for trees and flowers, and the cultivation of both. It may be blessed in leading the heart up to the love of the Rose of Sharon and the garden of God.—*American Messenger.*

For the New England Farmer.

THE CANKER WORM AGAIN.

CAN WE PROTECT OUR ORCHARDS FROM HIS RAVAGES?—A PLAN THAT HAS SUCCEEDED.

MR. EDITOR :—Permit me to correct a grammatical error in my last communication, in which I designated the female moth by the unfeminine appellation, "he."

Last fall my father caught several of the female moths, and putting them under a tumbler, watched their movements. True to their instincts, they immediately commenced toiling up the sides of the tumbler. Some could advance but a few lines; one or two, after several ineffectual attempts, at length reach the inverted bottom, when they stopped, and felt about, seemingly in trouble. In a few minutes they mustered courage and endeavored to walk the glassy plain, but in every attempt no sooner were their hinder feet raised from the sides, than down the poor insects came. Here, then, was a fact established, that *the female moth could not carry its destructive load across a horizontal surface of glass.* That they are provided with the foot-flap or suction apparatus attached to the feet of most insects, to enable them, by an atmospheric pressure, to more than counterbalance the falling down power of gravity, is evident from the fact that they could ascend the sides of the tumbler. Now for a practical application of this fact, which points to a horizontal plane of glass as an impassable barrier to the progress of the moth. The lamented Mr. COLE, in his excellent *Fruit Book,* states that Mr. F. Dana, of Roxbury, in the *Ploughman,* recommends that the tree be surrounded by a collar of wood made slippery by glass on the under side. Of the mechanical application of the glass Mr. Cole gives us no information. Mr. William Bowler, of this town, conjecturing that glass would be impassable to the moth, during the last fall and winter protected his trees accordingly, and the result was, as might be conjectured from the tumbler experiments, though his neighbors were sorely troubled by the ravages of the canker worm, his own trees were comparatively unharmed, and doubtless would have been wholly so, if the plan had occurred to him earlier, before the moth was on the move. For Mr. Bowler's method of applying the glass, I would refer to that gentleman himself, as, from the use he intends to make of his plan, it is not proper that I should make it public. However, I would say, that though he has courteously given us free permission to avail ourselves of his ingenuity, my father has designed, and is now protecting our trees by the following method, believing it to be as cheap, as efficacious, and considerably easier of application than that of Mr. Bowler.

For large trees, take two pieces of board, oblong squares, cut a semicircle out of each of them, so that when united the two may embrace the tree in the circle. Next take four strips of board, to be used as cleats to surround the wooden platform on the upper side, at about half an inch from its edge. Before securing these cleats, groove them away on their edges, to the depth of about three-fourths of an inch, with a width of about three-sixteenths of an inch. Secure these cleats to the platform (the

3. The *common practice* of grazing mowing lands is exceedingly injurious. Where there is a generous second growth of grass, a portion of it may be fed off without detriment, but to crop it as is the *common practice*, deprives the roots of their vigor, and exposes them to the winter winds, and is the frequent source of "winter-killing." Over feeding also robs the land of a coating of manure which would be found in the thick and decaying grass of the second growth.

4. Cotton cloth, oiled with linseed oil, answers a pretty good purpose for a hot-bed. But a glazed sash may be obtained so cheaply now, that it is scarcely economy to resort to anything else.

APPLES.

MR. BROWN :—I send samples of three varieties of apples, of which I wish to know the names.

The largest-sized red apple is just now in eating. bears well every year, most in odd years; tree probably forty years old.

Two specimens of what I take to be Hunt's Russet, keeps till May. Are they? One specimen of a handsome small, red apple, said to be very fine, in eating in January. An answer to the above, through the *Farmer*, or otherwise, will oblige,

North Andover, 1855. WM. BATCHELDER.

REMARKS.—Two of the apples mentioned above are the Hunt Russet—the others are unknown to us.

MAGGOTS IN SHEEP.

GIDDINGS WHITMORE, of Marshall, Calhoun Co., Michigan, informs us that common honey applied to the heads of sheep afflicted with vermin, or to the tails of lambs when docked, will cure them. He also says, in answer to the frequent inquiry, "What does the striped squirrel do with the dirt he excavates in making his hole?" that he has seen them repeatedly go away with their cheeks stuffed, and drop the contents in some stream near by, and so continue to work until their task was completed.

CULTURE OF CRANBERRIES.

MR. EDITOR :—Will you inform me through the columns of the *Farmer*, the best modes of cultivating cranberries, on a swamp where the turf is from 10 to 15 inches deep, and the water is drained two feet from the top of the turf. Would it be best to take off the turf and set the vines on the mud or muck? When is the best time for setting the vines, and how far apart should they be set? And is there anything that can be put on them to make them grow and bear well? H. W.

Mason, 1855.

REMARKS.—The following is the plan proposed by Mr. F. TROWBRIDGE, of New Haven, Conn., and agrees pretty well with our own knowledge of the proper mode of cultivation:

"The soil best adapted, is such as will keep moist through the dry season; they have been raised on land high enough to produce corn and potatoes with a wet substratum under the soil, or a clay and loam. They will not succeed well on dry, sandy, or land liable to bake or become hard in dry weather—but they will produce an abundant crop on poor swampy land that will not produce any other valuable crop, or any wet land after being drained. Dry ground should be plowed and harrowed smooth; in a swamp where a plow will not work, the turf or bog may be peeled off or burnt to get the weeds and grass out. They may be set in fall and spring, as early as the ground will admit, until the middle of May. Moss, tan, or anything to retain the moisture, would be beneficial around the plant after transplanting; a little sand around the plant fall and spring, will tend to keep the weeds out.

Planted in drills as you plant strawberry, cabbage, and other plants, one and a half to two feet apart. At two feet apart each way, it will take 10,000 plants to the acre. Hoe them slightly at first, until the roots become clinched, and afterwards no other cultivation is needed, unless to keep out weeds and grass. The plants may be expected to run together and cover the whole ground in two or three years. They can be gathered with a cranberry rake made for the purpose, to be procured at the agricultural stores."

HOW TO SAVE PLUM TREES AND PLUMS.

In the spring remove the soil from the roots, and if there are any knotty lumps on them, scrape them off carefully, and then scatter two or three quarts of coarse salt over them, and then put on the soil, and during the summer keep the tree well covered with air slaked lime, to keep off the curculios, and occasionally shake the trees while in flower and while the fruit is forming, gather and destroy all the fruit that drops. In this way I have been able to save my plums; I have gathered five bushels of good ripe fruit from one green gage plum tree this summer. Respectfully yours,

Pawtucket, Oct., 1855. G. D. STREET.

APPLES.

Please accept a specimen of my apples. Can you inform me the name of them? The tree is a great bearer, and some of the fruit is excellent; where the apple is exposed to the sun, it is somewhat watery. H. W. BARTLETT.

East Holliston, Oct., 1855.

REMARKS.—This fruit is new to us, and if like those we tasted, hardly worthy of propagating, when we have so many fine varieties about us.

For the New England Farmer.

STRIPED SQUIRRELS' HOLES.

MR. EDITOR :—There has lately been going the rounds of the papers an article asking "What becomes of the dirt when a striped squirrel digs his hole?" I had supposed that naturalists know, and that every intelligent farmer ought to know, that a striped or ground squirrel, when he digs his hole, carries his dirt in his cheeks to a distance of several rods from where he digs it. In proof of the above I can show a pile of dirt where it has been left by them, and have several times killed them with the dirt in their faces or cheeks. B. F. CUTTER.

Pelham, N. H., Oct., 1855.

THE INSECTS OF COMMERCE

There are forms of life, insignificant as to the outward appearance, which are not only indirectly serviceable to mankind, but of great direct commercial value, either in themselves or in their products, to some of which we may refer with interest, as illustrating the frequent connection of the beneficial with the lowly in the scheme of creation.

The honey which the bee elaborates from the nectar of flowers is in many countries an important article of food, and the base of a vinous beverage, though its value has much abated to ourselves since the discovery of sugar. The wax which the insect occasionally secretes is also an extensive demand among civilized nations for various domestic purposes, polishing furniture, and lighting up the saloons of the great.

At Narbonne, the chief trade is in honey, which is said to be the finest in France, remarkable for its whiteness, and highly aromatic flavor. This peculiar excellence is owing to the number of fragrant plants in the neighborhood, and the variety in the nourishment of the bees secured by the system of management. From the gardens of the city, the hives are regularly carried to the surrounding meadows, and afterwards conveyed 30 or 40 miles distant, as far as the Low Pyrenees. By this arrangement, the cultivated vegetation, with that of the meadows and the mountains, is put into requisition to produce the honey of Narbonne. The tending of bees is, perhaps, the oldest of all industrial occupations, after tilling the soil and keeping flocks and herds. It is also one of the most stable as to its locality. Milton speaks of the

> "Flowery hill Hymettus, with the sound
> Of bees, industrious murmur."

Hymettus, memorable from its connection with the name of Plato, extends to the east and south of Athens. From the summit, the ancient city was seen in its glory near the base while beyond it, westward, lay the Gulf of Salamis, the scene of the naval triumph of the Greeks over Xerxes. At that time the hill was a "flowery" one, and swarmed with bees, from whose hives the best of the Attic honey was obtained. The hill is now where it was, and as it was when Themistocles fought the Persians, covered with wild thyme, giving employment to those humble laborers, who in uninterrupted succession, have occupied the spot, from the most prosperous days of Athens to the present hour. They are kept in hives of willow or osier, plastered with clay or loam within and without. For upward of two thousand years the Hymettian bees have been on record, surviving the revolutions which have changed the features and uprooted the population of Attica, according to the poetical saying,

> "Their race remains immortal, ever stands
> Their house unmoved, and sires of sires are born."

Next to these pleasant caterers for the healthy, mention may be made of a class extensively used in medicine. In former times, odd ideas prevailed respecting the medicinal value of insects, which if true, would certainly diminish expenditure with the apothecary; for lady-birds have been recommended in cases of measles, earwigsin nervous affections, cockchafers for the bites of mad dogs, ticks for erysipelas, and woodifice as aperients. But, passing by such vagaries, the Spanish fly, or blister-beetle, *cantharis vesicatoria*, is an insect of commerce indispensable to allopathic *materia medica*. It is found sometimes in England, but this is a rare occurrence, though it appeared in great numbers in Essex, Suffolk, and the Isle of Wight, in the summer of 1837, frequenting ash trees, on the leaves of which it feeds It is more common in France, abundant in Spain and Italy, though, notwithstanding the name, the greatest quantity is obtained from Astrachan, in Russia. The Russian insects are considered superior to those from other quarters.—When alive they exhale a pungent volatile principle. Persons employed in collecting them have the face and hands protected by coverings, from contact. This is usually done morning and evening, when the insects are somewhat torpid, by shaking or beating the boughs of the trees they infest with poles, and receiving them on cloths spread upon the ground. They are then killed by exposure to the vapor of hot vinegar, dried in ovens, or on hurdles in the sun, and packed for the market in casks and small chests. Fifty of the dried carcasses scarcely weigh a drachm. The *cantharis* is about three-quarters of an inch in length, of a light shining green color, with bluish-black legs and antennæ. When touched the insect feigns death.

After the luxurious and healing insects, we come to a much more tiny and numerous class to which the name of dyers may be applied. Cochineal, used to produce our brilliant scarlet, crimson and carmine dyes, is the dried carcase of an insect, *coccus cacti*, found in Mexico, Georgia, South Carolina, and some of the West India Islands, where it lives and propagates upon the *cactus cochinillifera*. The plant produces a fruit, which is also of a purple color, and is supposed to contain the coloring matter. The insect is of small size, seldom exceeding that of a grain of barley, and was generally considered a vegetable substance for some time after it began to be imported into Europe. It is on record that a ship being wrecked in Carmarthen Bay, of which cochineal formed a part of the cargo, the article was turned into the sea as damaged grain, and the bags alone preserved. In Mexico, the principal seat of production, where the insect is reared with care, there are two varieties; the best, or domesticated, called *grana fina*, or fine grain; and the wild, named *grana sylvestra*. The former is nearly twice as large as the latter, probably because the size has been improved by the favorable effects of human culture. The insects are detached from the plants on which they feed by blunt knives, and killed by being dipped in boiling water, then dried in the sun, and placed in bags for exportation. In 1851, our imports included 22,451 cwts. of cochineal, somewhat more than half of which quantity was retained for home consumption. As each pound is supposed to contain 70,000 insects, the enormous annual sacrifice of insect life to supply the markets of the world may be readily imagined. The insect has been introduced into Spain, Malta, Algeria, Java, and India, but the valuable article of commerce is still the produce of Mexico.

Kermes-grains, another dye-stuff, consists likewise of the dried bodies of an insect belonging to the old world, *coccus ilicis*, of kindred species to the true Mexican cochineal. It is found upon a small kind of oak which grows abundantly in the south of Europe. The tree clothes the declivities of the Sierra Morena, in Spain; and many of the inhabitants of the province of Murcia have no other mode of obtaining a livelihood than by gathering its animal tenants. There are several other species, one of which is called the scarlet grain of Poland, *coccus polonicys*, being found on the root of a perennial plant growing in the sandy soil of that country and other districts. The word kermes is of Persian or Arabic origin, and signifies "a little worm." In the middle ages, the material was therefore called *vermiculus* in Latin and *vermilion* in French, which latter term has curiously enough been transferred to the red sulphuret of mercury. Before the discovery of the western world, it was the most esteemed substance for dyeing scarlet, and had been used for that purpose by the Romans and other ancient nations from an early period. But notwithstanding their acquaintance with it, the real nature of the product was unknown, being supposed to be a vegetable grain, fruit or excrescence, and not finally established to be an insect, assuming the aspect of a berry as it did in the process of drying, until a recent date. Through several centuries in Germany, the rural serfs were bound to deliver annually to the convents a certain quantity among the products of husbandry. It was collected from the trees upon St. John's day, with special ceremony, and was called *Johannisblut*, "St. John's blood," in allusion to the day and the color. Many a proud cardinal has been indebted to this diminutive creature for the red hue of his hat and stocking.

BLOOD STOCK.

It seems impossible to make some people understand what is meant by the expression, "Blood Stock." They will twist, and turn, and laugh at the idea that any farmer, by judicious selections, has reared a herd of cattle that inherits the principal traits of the animals selected to begin with.

They laugh at the idea of keeping the very best for breeders—and will tell you how a chance animal of their own has excelled the herds denominated "blood stock."

And yet when you ask what reliance they can have on the progeny of chance animals, they will tell you that they have bred from the same for sixty years in succession, and therefore they are confident of success in rearing their calves.

Now this is precisely the doctrine of the advocates of "blood stock." They breed from the best, and cast off the inferior animals. They want no crosses with inferior animals, and are confident that by pursuing this course, they are on the *right* road to perfection, however long that road may prove.

Still there is another class of farmers who profess to think that the most promiscuous intercourse between the males and females of cattle, will tend to produce better dairy cows and better working oxen, than can be produced by any kind of selection.

These farmers inquire what is meant by "blood stock." They would prefer to buy from the most promiscuous herds of cattle because they occasionally find an extraordinary cow that yields more than the average of blood stock. If one in fifty is found to excel the average of select stock, they seem to think they have proved their case, and are ready for judgment.

But what progress do such people make in farming? The same which a gambler makes to get a fortune. He runs for luck, and makes but little calculation, except upon the want of information of those who may be induced to play with him.—*Ploughman.*

For the New England Farmer.

HO! FOR THE WEST.

MR. EDITOR:—A certain man in West Roxbury lately got the Western fever, and as one step towards its treatment, sold out a fine milk run, from which he had made a good living, and laid by some money against a rainy day. His son on going his rounds for the last time, called on an old sea-captain, whom they had supplied with milk for some years, after pouring out his accustomed supply, the son told the captain that Mr. W—— would bring his milk to him in future, as his father had sold out to Mr. W——, and contemplated going West. "D—— the West," abruptly replied the old salt.—"Tell your father that when he has been around the world as much as I have, and seen the whole elephant, he will be glad to come back and settle in good old New England," and without any further remark resumed his chair.

I have no doubt very many have found the rough prophecy of the sea captain sadly true to their experience. Very few who go West, so far as I can learn, (and my experience embraces a large number,) acquire property strictly by farming. They have got their money either by speculation or by the rise of property on their hands. So far as real legitimate farming is concerned, it will be found, I think, that the East compares very favorably with the West, and so far as *small* farmers are concerned, rather exceed the Western. Of course I have nothing to say in regard to the ease by which crops are produced in the one compared with the other—simply the amount of money obtained, acre for acre. There is no question but certain crops are produced very much easier in the West than they are in the East, or ever will be. Now then the question comes up—does it pay—this going West to engage in farming, if that is the only object? Very few persons who have been nurtured and brought up all their days in the East, and perhaps never have been fifty miles from their birth-place, form very correct ideas of what this young West really is, until they arrive where the elephant can be seen in all his gigantic proportions, and then they do see very truly a magnificently large animal—handsomely proportioned for one of its size—but after all, it's *all* elephant and nothing else. It seem to me that no man in his right sense would think of going West and taking up government land at $1,25 per acre. The chances are, as a general thing, that he will die before he gets anything like his good New England civilization and privileges about him, will deter him from this rash act. What then?—why, he will purchase a farm with more or less improvement, and get rich by the rise of his lands in value, that's all—not by farming. Now I ask our young New England men again, if under all the circumstances, and I have only suggested some of them, this going West is a paying business? I think not. Not as long as good farms, in delightful townships, with all our puritan priviliges, can be purchased for from $1000 to to $3000 in any of these New England States. How many are there now "out West" who wish themselves back again, and in their old homes—I could not guess. No doubt, however, they are legion, and I *guess* the old sea Captain's *blessing* has more than once passed their lips.—Take my advice, boys, and stay at home.

Oct., 8th, 1855. TIRRELL.

CORN POETRY.

We find in the Iroquois *Free Press* some poetry upon "Indian Corn" written in a style a little homespun, but after all with a kind of ring about it which may commend it to the boys. The verses go off in a real strong Mormon sort of way.

The West can boast of glorious streams,
And prairie's grandest lawn—
Of lake and forest old and green,
But most of Indian corn,
Large fields of Indian corn

From peaceful sleep the plowman wakes,
And rises with the morn;
Deep furrows all day long he makes
Through rows of Indian corn—
Long rows of Indian corn.

'Tis sweet when summer suns go down,
When winds have ceased to blow,
To list its rustling, crackling sound,
And think we hear it grow;
It seems so glad to grow.

I love to pull it from the stalk
When it is in the milk,
And husk it out its sheath, and talk
Of its soft shining silk—
Its glossy floss, its silk.

And when at noon aside we dash
Our work for bell or horn,
Give me a dish of succotash
Or ears of Indian corn—
Hot ears of tender corn.

I'll take it with a true delight,
And costlier dishes scorn,
For nothing tempts the appetite
Like ears of roasted corn—
Sweet ears of roasted corn.

Then when its sheaves stand thick about,
And fruits the fields adorn,
How gushes out the merry shout
From huskers of the corn—
The yellow, golden corn.

Where freedom floats on every breeze,
And fields of Indian corn
Are spread out on the land like seas!
I joy that I was born—
Blessed land of Indian corn.

For the New England Farmer.

GRAFTING YOUNG TREES.

MESSRS. EDITORS:—My attempt to graft the pear upon the Amelanchier, or Shad bush, has not been successful this year, mainly in consequence, as I think, of hasty and imperfect operation. None of the grafts have taken; but as I am perfectly aware that they did take on the same stock, and grew vigorously, forty years ago, as mentioned in my last communication, I do not consider the point decided against the use of the shad bush for a stock in lieu of the quince; and I look for a more favorable issue of the next trial.

Allow me to bring to your notice another horticultural question. Possibly some of your correspondents may have determined it already, from their own experience. It is presumed that seedlings are often raised from garden or orchard apples for the purpose of forming stocks. The question is, will such stocks be serviceable for grafting with scions from those trees from which the stocks derived their origin? Is it probable that trees so obtained would derive either advantage or detriment with regard to the quality of the fruit, or the duration of the tree? Or would the case be simply immaterial?

On yet another point your opinion would be very acceptable—with respect to the feasibility of establishing an orchard in less than the ordinary time, by grafting young trees where they stand, without subsequent removal, instead of transplanting grafted trees. For instance, in this quarter, although situated in the farthest north and east, and exposed to the icy blasts of the northern Atlantic,* apple trees appear to spring up spontaneously. Whole fields are dotted over with them. I have such a field. The soil is gravel, on limestone rock. It never was much cultivated; and for many years, not at all. The white weed, or ox eye daisy, has been in undisputed possession of it, during forty years; but it contains numerous young apple trees, no doubt sprung from seed that has been casually dropped. There are old trees not distant, supposed to have been planted in the time of the French occupation of the country. They may be eighty or one hundred years old, and still thrive luxuriantly, in defiance of all sorts of ill treatment. Might not this field be expeditiously converted into a valuable orchard, by grafting the young trees where they stand? The question afterwards would be—ought they to receive any cultivation, and of what kind? They appear not to require it in the natural state.

A reply to these questions would, undoubtedly, prove interesting to others, as well as to

Sept. 12*th*, 1855. FAR EAST.

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* As late in the season as 17th of May, I have witnessed the sea filled with floating masses of ice as far as the eye could reach.

A GOOD INVESTMENT.

We had the pleasure last week of going over the farm belonging to J. W. Patterson, Esq., the present Mayor of our city, and noting the results of some experiments he has been trying during the past season. This farm is about a mile east of the bridge, and is principally a clayey loam. About 45 acres of it last year was covered more or less with bushes, being that part from which wood had been cut for market. Last summer, during the height of the drought, he employed some persons to cut the bushes, but soon after beginning the work, some boys thought they would set fire to a hornet's nest which they met with among the bushes. The fire spread from the hornet's nest and soon burnt over the whole piece, and was with difficulty restrained from doing damage elsewhere.

It now became necessary to put the land into a condition to bear crops. Accordingly, late in the fall, just before the frost had shut the ground up, Mr. Patterson had a portion of the ground harrowed, and on it he sowed winter rye, together with herds grass, clover, and red-top. This was suffered to remain without being harrowed at all, and the winter soon setting in, none of the seed germinated until the spring. After the spring opened, a part of the rye came up, and to appearance all of the herds grass and red top, but not much of the clover. The rye that came up grew very well, but the herds grass and red top came on vigorously, and produced a bountiful crop of grass which was cut and secured at the usual season.

Mr. P. estimates the amount of hay obtained from the grass seed thus sown in the fall, and which did not come up until spring, to be not less than twenty-five tons. We did not note what probable number of acres of the forty-five were thus laid down. The balance of the piece was laid down this last spring, and is covered with a heavy crop of grain, and the catch of grass is excellent.

The crop consists of four bushels sowing of spring wheat, and thirty-three bushels of oats. The wheat is the variety known by the name of Scotch Fyfe wheat,—this is a variety not usually cultivated among us. It is a bald wheat, straw of medium height and the berry is white and plump. It is now ready for the sickle, though not sowed until the 25th and 26th of May last. We saw no signs of weevil or rust among it, and we should judge that it would yield twenty-five bushels to the acre.

But what we wished more particularly to remark is this, viz: that the money invested in this enterprise is well invested. We find that our farmers may be divided into two classes in regard to the subject of expending money in agricultural improvements on their farms. 1st. Those who *would*, but cannot. 2d. Those who *can*, but *will* not.

Mr. Patterson expended not less than $600 on this 45 acres. This is a great deal of money to be thus used in our latitude. Many of our farmers, instead of putting $600 to such a use, would look at it a long time before doing any such thing, and most probably would have used it in skinning some poorer neighbor by shaving his note so closely that the discount would far outweigh the principal—the princi-*ple*, too.

But this investment has proved a very safe and profitable, and, what is better yet, a very honest one. Mr. Patterson will realize at least a return of $400 on the $600 invested, and that too in one short year, and the land still be in a condition to return as much another year. Can any of your note-shavers and fancy stock jobbers show a better return for cash invested?—*Me. Farmer.*

For the New England Farmer.

FROZEN SAP BLIGHT.

Mr. Editor:—Dear Sir,—permit me, through the columns of the *Farmer*, to express my views in answer to J. W. W., as I, too, have suffered from the same cause, viz: *frozen sap blight on the trunks of apple trees*. When it is recollected that the first part of last winter was very mild, and that the latter part was the coldest we have experienced for thirty years, I think we may safely conclude, that during the mild weather, the sap had been attracted to a certain extent up into the trunks of the trees, when the intensity of the cold which followed, caused the sap vessels to burst, and hence the dead bark. I have one fine Hubbardston tree on which there is a space about eight inches wide, killed entirely around the tree; this having pealed off, I prepared eight scions, taken from a young Greening tree, and inserted one end of each under the live bark, above and below the dead part, and covered the wounds with grafting wax. They soon united and have made a fine growth, and the tree ripened several apples. I have about one hundred and fifty apple trees, of ages from two to twenty years, that have rarely escaped a wash of soap-suds twice in the course of each year, but I have no reason to suppose them any the worse therefor. E. C. H.

East Bridgewater, 1855.

The Coffee Tree in Maine.—Mr. Drew, of the *Rural Intelligencer*, says that a friend of his in the town of Mt. Vernon, has for the last three years raised the coffee plant in the open air, from seeds brought from Cuba. It grows about two feet high and produces its berries in pods, something like peas. The plants, he says, have matured, even this cold season, and the berries ripened without injury from frosts. He has promised us some of the coffee of this year's growth to plant in our own garden, for he desires that we also should test the truth of his experiment.

For the New England Farmer.

THE WEATHER AND CROPS.

NOTES ON THE WEATHER AND CROPS IN THE YEARS 1854 AND 1855.

Messrs. Editors:—Notwithstanding all our boasted knowledge and progress in the various branches of farming, we see it verified that "Paul may plant and Apollos water, but it is God which giveth the increase." Deep plowing, scientific manuring and improved cultivation, do not warrant us great crops. We see that from different causes our crops have fallen short the two past seasons, under any system of management which intellect could devise. I shall commence my notes at the first of May for each year. I have not gone to the accuracy of stating the degrees of heat and cold by the thermometer.

1854.

May 1, moderate; 2, very warm and pleasant; 3, rainy with lightning; 4, great rain from north-east; 6, snow squalls, very cold; 7, Sunday morn, froze so hard as to bear my weight on a puddle in my barn-yard! the coldest day I ever saw in May; 8, cool; 9, warm and pleasant; 10, do; 11, thunder shower and plenty of rain; 12 and 13, warm and pleasant; 14 and 15, rainy, very growing time; 16, very warm and pleasant; 17, wind east, apple trees begin to blossom; 18, showery all day; 19 and 20, fine and fair; 21, light thunder showers; 22, fair; 23, cool; 24, slight frost; 25, rain; 26, eclipse of the sun, and cool to the end of the month.

June 1, slight frost, grows dry; 2 to 7, continues dry; 8, soaking rain; 9, growing time; 10, showery; 11 and 12, cool; 13, little shower; 14, warm; 15, warm, thunder-shower and plenty of rain; 16, 17 and 18, good weather; 19, thunder-shower and little rain; 20, ground well soaked, rose-bugs appear; 21, sudden change in the weather, wind northeast, very cool; 22, cloudy and cool, wind north-east, and continued so till 24, when it cleared off; 25 and 26, cool and dry; 27, do; 28, warmer, thunder-shower and plenty of rain; 29, fair and warm; 30, cloudy, cool and rainy, vegetation looks well, corn shows the tassel earlier than for many years.

July 1, fair and cool; 2 to 11, very warm and dry; 12 and 13, cool and dry; 14 and 15, rainy and cool, wind north-east, ground well soaked; 16 and 17, foggy, 18 and 19, good hay weather; 20, 21, extreme heat; 22, cloudy, wind north-east; 23, great heat and soaking shower; 24, warm thunder-showers all day, wind south; 25, the third rainy day; 26, cloudy; 27 and 28, cooler, good hay weather; 29 to 31, warm and dry.

August, 1, 2 and 3, warm and dry; 4, fine rain; 5, great dew—through July to this date, but little dew. 6 to 12, cooler and dry, no dew; 13, very hot and dry, no dew; 14, cooler, wind north-west, very dry; 15, light frost, dry; 16 and 17, fair, cool and dry; 21 to 30, very dry, no dews, fires raging in many places; light frosts on the mornings of 28 and 29; 31, warm and dry.

September 1, rain, first since August 4; 2 to 10, plenty of rain, weather fine, fires extinguished, growing season at an end. From the 4th to the last of August the drought was the most rapid, and the evaporation the greatest I ever knew in so short a space of time, which may be accounted for from the circumstance of the great heat and deficiency of dews.

1855.

May 1 to 8, cold, frosty and dry; 9 and 10, wind north-east, cold and cloudy; 11, moderate; 15, warm and dry; 16, began to rain, which continued through the night; 17, fair and cool; 18 to 23, very cold and cloudy, a few drops of rain; 24 frost, A. M.; warmer, with lightning, P. M.; 25, warm; 26, cold and windy; 27, 28 and 29, frosty mornings and cold dry days; 30 and 31, cool and dry, apple blossoms begin to fall. May has been a cold, dry month who can wonder that the crops of English hay should be short and the other crops backward at the end of such a May?

June 1 to 3, violent south wind lasting three days doing much damage, accompanied with clouds and very little rain; 4, 5 and 6, cool and dry; 7, rainy, wind north-east; 8, windy and cold; 9 to 12, light showers and cool; 13 and 14, cool; 15, rain; 16 and 17, cool; 18, frost; 19, rain through the night; 20, cool, all vegetation very backward; 21, warmer, with soaking showers; 23, warm and growing weather with plenty of rain up to the 27th; 28, 29 and 30, extreme heat and a little rain to finish out the month.

July 1 and 2, hot and dry; 3 and 4, fine weather; 5 and 6, showers; 7 and 8, great north-east rain; 9 and 10, fair and cool; 11, rainy; 12 to 19, warm, good haying; 20 to 31, showery, poor hay weather. July has been a favorable month for vegetation.

August 1, the first fair day for a long time; 2, 3 and 4, good hay weather; 5, 6, fair, plenty of dew; 7, fine shower; 8, cool; 9, soaking rain; 10, fair and cool; 11 to 15, cool; 16 to 17, showers; 18 to 22, cool and frosty mornings; 23, warmer; 24 and 25, fair and warm; 26, light rain; 27, very cool; 28 to 30, fair, cool and frosty mornings; 31, a hard frost which put a check to the growth of vegetation, injured the corn and other crops, and nearly ruined the cranberry crop, and put an end to the growing season for the present year.

Thus we see in defiance of all our wise plans and anticipations, our corn, cranberries and many other productions were cut off or injured last year by heat and drought, and the present year by cold and frosts; but, thanks to a good Providence, we have enough of every good thing left but gratitude to the bountiful hand which has dealt with us so liberally heretofore. Our best policy will be to "go ahead" with renewed energy in preparation for another year by collecting materials for manure. I have lately dug out and carried on to the "field of operations" some 300 loads of mud in preparation for another attempt at supplying our bodily wants, independently of any nation living at any of the four points of the compass. S. Brown.

Wilmington, Sept. 12, 1855.

New York Horticultural Review.—Some time since, we received the first number of a work with the above title, edited and published by C. Reagles, Esq., New York city. It is illustrated with landscape sketches, fruits, plans of buildings, &c. It is printed in convenient 12mo. or small 8vo. form, and filled with well written, practical articles. Among the contributed articles is an excellent one on shade trees, by our old friend and correspondent, William Bacon, Esq., of Richmond, Mass. The articles, generally, are attractive, and indicate a knowledge of the wants of the people on the part of the editor. We wish the enterprise great success.

EXHAUSTION OF THE SOIL.

"There is, on an average, about one-fourth of a pound of potash to every one hundred pounds of soil, and about one-eighth of a pound of phosphoric acid, and one-sixteenth of a pound of sulphuric acid. If the potatoes and the tops are continually removed from the soil, it will soon exhaust the potash; if the wheat and straw are removed, it will soon exhaust the phosphate of lime; if corn and the stalks, it will soon exhaust the sulphuric acid. Unless there is a rotation, or the material that the plant requires, supplied from abroad, your crops will soon run out, though the soil may continue rich for other plants."

An acre of soil twelve inches deep would weigh, say 1,600 tons. According to the above figures, it would weigh 8000 lbs. of potash, 4000 lbs. of phosphoric acid, and 2000 lbs. of sulphuric acid. Estimating that potatoes contain 20 per cent. of dry matter, and that 4 per cent. of this is ash, and that half of the ash is potash, we only remove in a crop of 250 bushels, 60 lbs. of potash. Say that the tops contain 20 lbs. more, and we have potash enough in an acre of soil to produce a crop of 250 bushels of potatoes, each year for a century!

A crop of wheat of 30 bushels per acre, contains about 26 lbs. of ash, and half of this, say, is phosphoric acid. Allowing that the straw, chaff, &c., contain 7 lbs. more, we remove from the soil in a crop of wheat of 30 bushels per acre, 20 lbs. of phosphoric acid. According to the above estimate, then, an acre of soil contains sufficient phosphoric acid to produce annually a crop of wheat and straw of 30 bushels per acre, *for two hundred years!*

We will pursue the calculation no farther. The writer of the paragraph quoted above, selected out the crops and elements best suited for his purpose; but it will be seen, that even according to his own estimate, there is sufficient potash and phosphoric acid in the soil to give the present wicked generation all the potatoes and wheat they may need.

But let us take another view of the subject. No intelligent farmer removes all the potatoes *and tops*, all the wheat, straw and chaff, and all the corn, stalks, &c., from his farm. According to Dr. Salisbury, a crop of corn of 75 bushels per acre removes from the soil 600 lbs. of mineral matter; but the grain contains only 46 lbs. The remaining 554 lbs. is contained in the stalks, leaves, sheaths, husks, tassels, &c., all of which are generally retained on the farm. It follows from this that, when only the grain is sold off the farm, it takes more than 13 crops to remove as much mineral matter from the soil as is contained in the whole of one crop. Again, the ash of the grain contains less than 3 per cent.

of sulphuric acid, so that the 46 lbs. of ash in 75 bushels of corn contains less than a pound and a half of sulphuric acid, and, thus, if as is estimated, an acre of soil contains 2000 lbs. of sulphuric acid, we have sufficient for an annual crop of 75 bushels per acre for fifteen hundred years!

Intelligent wheat-growers seldom sell their straw, or chaff, and frequently consume on the farm nearly as much bran, shorts, &c., as is sent to market with the grain. In the Natural History of New York, part 5, it is stated that a crop of wheat, in Western New York, of thirty bushels per acre, including straw, chaff, &c., removes from the soil 144 lbs. of mineral matter. Genesee wheat usually yields about 80 per cent. of flour. This flour contains only 0.7 per cent. of mineral matter, while fine middlings contain 4 per cent. Coarse middling, 5½; shorts, 8; and bran, 8½ per cent. It follows from this that, out of the 144 lbs. of mineral matter in the crop of wheat, less than 10 lbs. is contained in the flour. The remaining 134 lbs. is found in the straw, chaff, bran, shorts, &c. Even, however, if none of the shorts is returned to the farm, the 30 bushels of grain remove from the soil only 26 lbs. of mineral matter; and it would take more than five crops to remove as much mineral matter as one crop contains. Allowing that half the ash of wheat is phosphoric acid, 30 bushels remove only 13 lbs. from the soil, and if the soil contains 4000 lbs., it will take 207 crops of 30 bushels each to exhaust it.

We commend these facts to the consideration of the writer of the paragraph we have quoted. If his estimates are correct; if the soil contains as much potash, phosphoric acid and sulphur as he states, we need have few fears of waking up some morning to find all the precious elements of crops departed from our soils forever.

We should just observe that the idea, embodied in the latter part of the paragraph, has no foundation in fact. If a soil is *exhausted* of potash, or of phosphoric acid, it will not "continue rich for other crops." Not a plant that we commonly cultivate, can grow upon soil destitute of *any* of the mineral elements of plants.—*Country Gentleman.*

FARMS ON CAPE COD.

Yesterday we were conducted over the excellent farm of James Howes, Esq., who for the last few years has made great improvements upon his land and barn. He has brought a patch of land he owns, which is situated upon a high hill, into a good state of cultivation. Though upon this land he has expended much labor and money, he has begun to reap the advantage of what he has done. His crops of carrots and ruta baga turnips are most excellent. When he sowed his rye last season there was mixed with his seed considerable quantities of wheat; by this accident he has discovered that a portion of his land is adapted to its cultivation, for when his crops was matured, he found that the ears of wheat were well filled out, and in fact, were in every way equal to what he had seen in any part of the country. This fall he has sown a piece of his land with wheat, and the recent rains, combined with the clemency of the season, have caused the young and tender blades to appear, and altogether, present appearances seem to indicate that his experiment will be successful.

The barns of Mr. Howes are large and airy; he has accommodation for twenty or thirty head of cattle. And some persons, who are bound to stick to the old methods of saving and making manure, would do well to pay him a visit and observe the capital arrangements he has, in connection with his barns, to save the refuse (which is often swept out and made unavailable for farming purposes;) he carefully preserves all he can, and causes it to be passed into his manure cellar, where it is compounded with the rest of the waste matter which goes to make up the dunghill.

Altogether, this is one of the best farms we have seen on Cape Cod, and those who contemplate improving their land and barns, would do well to call upon Mr. Howes and see what industry and scientific farming can do towards turning the desert into a fruitful field.—*Barnstable Patriot.*

For the New England Farmer.

AN EASIER WAY THAN FARMING.

BY ICHABOD HOE.

"What is the use in digging on the farm, where one is exposed to all sorts of weather, wet and cold, hot and dry, just barely squeezing along and making the ends of the year meet, when one can work in a shop where it is warm and dry, and in the shade at least in hot weather? Dig as hard as we will, we can't make as much as those who work at boot-making, and don't work much more than half the time either. I'm going to quit farming and turn one of the rooms of my house into a shop, and I and my boys will go to making boots, and I advise you to do the same."

"I know there are hardships in farming, and rather slow pay, but it's a pretty sure pay, and I believe I will keep digging. It is said to be 'hard to learn old dogs new tricks.' Farmers have to be exposed to all sorts of weather, but if they are careful, it is no worse than being shut up in a shop all the time and confined to a bench."

"O, a man needn't work all the time on the bench, he can make his dollar and a half a day in the shop and not work much more than half the time, and the rest of the time he can work out of doors, if he has a mind to."

"Yes, but that 'mind to' is apt to be lacking; I have noticed in those who get accustomed to the shop, they don't like to go out doors to work."

"Ah! that's because it is so much easier to work in the shop, and I'm not disposed to expose myself to all weathers and work like a dog when I can get along a great deal easier, and a good deal faster, another way. The thing is 'done' with me, and I advise you to follow suit, and do as all the rest of the world—that are smart enough—are doing, get a living some other way than digging on the farm for it."

Up to this time, these two neighboring farmers had maintained a sort of friendly rivalry in the management of their farms. Mr. Russel, the one who was going to quit farming, had the largest, and naturally the best farm, but Mr. Burton, his neighbor, "*took the papers,*" and brought a little more judgment and skill to bear upon his acres, and seldom failed to raise a little the largest crops on less land. Taste and inclination, too, made farming lighter to Mr. Burton than to his neighbor, who the reader has already observed, thought a good deal of getting on easily and without exposure. His sole stimulous and principle of action in managing his farm, was, to get the most possible for the present, without reference to the future. Under this system, he found that every succeeding year required closer engineering to make the ends meet, and this, too, notwithstanding his two boys had got big enough to do almost a day's work each. Mr. Burton had followed quite another system in the management of his farm, and by the help of his boys, who were twins, about the age of Mr. Russel's second boy, he found his income from the farm slightly increasing. Farming at that time was at a pretty low ebb, and every body, as Mr. Russel said, seemed to be leaving it to get a living and property some other way.

The most casual observer would see at a glance that Mr. Russel was not a man of much taste, from the appearance and arrangement of his buildings. His house, which he had built himself, stood close by the road-side, and his barn stood nearly opposite to the house on the other side, still nearer the road than the house. No trees or shrubs sheltered or adorned either the house or barn. His neighbor Burton's was somewhat unlike this. His place manifested no particular refinement of taste, but it had a different "air" about it. It stood farther back from the road, and had several fine large cherry trees near it, and two towering pear trees, and there were shrubs and flowers around and near it, which gave it a cheerful aspect. And then the barn and out-buildings were back from the house, and nearly out of sight, hid by the apple trees between them and the house.

Mr. Russel had the shop-room soon finished off, and a hand hired to come and learn both himself and sons to make boots. He had three sons in all, but the youngest was too young to do much; he had one daughter. Mr. Burton had two sons—the twins—and three daughters.

Russel applied himself with a will to his new trade, and Burton dug away upon the farm, with, perhaps, a little more energy and determination than ever. For two or three years Russel gained upon his neighbor in worldly thrift. Times in his new business were good, and money flowed in easily, but, some how, it seemed to get away unaccountably fast. The first season after Russel and his sons begun on their boot-making, they planted a piece to potatoes and a small patch of corn, and had what was called a garden too, but it was very little attention they all got. Occasionally Mr. Russel himself would get out with a hoe, but the boys usually shunned that kind of recreation, and after the first season, they all concluded they had rather take a few more stitches, or drive a few more pegs a day, and buy what was needed in the family, in perference to working out doors for exercise, to raise it, and to take their exercise in more agreeable ways. But these agreeable ways were extremely apt to cost money in some shape, or to lead to it, at least. A "quarter" or *two* every little while, and a dollar now and then, were but trifles, and soon earned! So it went to the end of the year, when it was found that there were not half the "shot in the locker" they expected to see there when the year began.

One cause of this was found to be owing to the amount of doctors' bills they had to pay; for, from some cause or other, there had been a good deal of sickness in the family of late. In the winter they were some of them on the borders of a fever from a "terrible cold," and in summer all sorts of complaints troubled them. But, notwithstanding all these "pull backs," they made more money than they did at farming, and *could see more* at the end of the year.

Meantime farmer Burton kept on the even tenor of his way—improving his farm somewhere every year; sometimes reclaiming a piece of low ground by ditching and draining, and improving the high ground with the muck from the low, and the low with the sand or loam of the high. As the "twins" grew up toward manhood, they felt, like all young men, as though they could do wonders for themselves by leaving the old hive and striking out to make their fortunes on their own hook; but the father's experience had taught him that "in union there is strength," and he advised them to remain at home with him and he would allow them so much a month, or if they preferred, they would all work in common, and each share such a part of the profits. The advice of the father, aided by the persuasions of an excellent mother and affectionate sisters, who all aided in making home pleasant, overcame all inclinations to go abroad. The father and sons formed a sort of joint stock, or rather, joint labor company out doors, and the mother and daughters its counterpart in the house. The mother was a very intelligent woman, and acquainted with the ways of the world to more than an ordinary extent for one in her place—having taught school in her younger days.

As has been said, Mr. Burton's farm consisted of less than a hundred acres, containing, in fact, but seventy. For a while he thought of buying a part of his neighbor Russel's, but he found the more and better a piece of ground was cultivated, the more a great deal it produced. Acting on this hint, it was not long before they found they had as much land as they could manage with profit. Their farm was situated ten miles from Boston, and in two or three years from the time to which this story refers at its commencement, a railroad was constructed through the town, and not far from the farms of Mr. Russel and Mr. Burton. This gave facilities for getting the products of the farm, its fruits and early vegetables, to market, and Burton and his sons found each year added to their income.

There came to be a great difference between the two homes of the two families here spoken of. The Russel family were all engaged upon boots in some form or other. The mother and daughter "bound, stitched and fitted" boots, and the father and sons made them, and when the boot business was good, they handled a good deal of money. But all must have times for recreation, and the only recreation that suggested itself to the younger members of Mr. Russel's family, was some game, or a ride, or hunting and fishing, or something of this sort. Home was a place to work, to eat, and to sleep in; but they never thought of it as a place to enjoy themselves, and there was little in fact there attractive. Scarcely a newspaper was to be found there, and few books beside the Bible, psalm-book and the greasy "dog-eared" school books, that had been used in school. We say, "had been," for since the boot-making had begun, little time had been spared to going to school.

But it was quite otherwise in the family of Mr. Burton; each member of the family took a periodical of some kind! so there were no less than four weeklies and three monthlies. Among these were some of the best agricultural and horticultural periodicals published in the country, the rest were religious, political, or literary, and they were all read more or less by all the family. But the great feature of attraction and source of enjoyment to the family was the plat called "the garden," and it was worthy of its name. Each one had his or her distinct part set off by metes and bounds, and each cultivated it just as they saw fit.

The mother had in her part the useful herbs, pie-plant, asparagus and a row of gooseberries which a friend had sent her, of a choice kind. The father paid attention mainly to the kitchen garden vegetables, onions, beets, carrots, early potatoes, &c., and around his own and Mrs. Burton's was set out a row of currant bushes, red and white; and then they had a patch they cultivated in common, in which were to be found cucumbers, early peas, beans, &c. Then each of the young folks had whatever fancy or inclination dictated, and there was a generous rivalry between them as to which should exhibit the most attractive territory. The girls each planned her own "improvements," and the boys rendered all needed assistance in spading, planting trees, or constructing arbors, or any thing else that required their aid. Their gardens, of course, abounded mostly in flowers and shrubs, though among these were to be seen strawberry beds, in the most perfect condition, tomatoes, melons, and a variety of other fruits. The "twins" went mostly into tree-fruits, as cherries, peaches, pears and apples. Calvin was mainly interested in cherries, plums and peaches, while Luther as assiduously cultivated pears,—dwarf and standard—and apples; and there was not a day in the year in which the family were not fully supplied with fresh fruits. The apples were not gone from the bins in the cellar, before strawberries, early cherries, &c., were abundant; then currants, gooseberries, raspberries, early apples and pears came again, and so the delicious circle was seldom broken throughout the year. Owing to these ripe fruits to season their food, diseases were seldom known in the family.

It was a pleasing sight to see the whole family after supper, toward the close of day, enjoying themselves in the garden, admiring each others' productions, eating fruit and nursing some pet flower or tree. This was happiness, simple, pure and elevated. It was considered almost a calamity to any member of the family to be away from home at such a time. None minded working hard during the day, for rest and recreation awaited them after the day's work was done.

They had struggled on through "hard times for farmers," when every other interest seemed to prosper. But there was a great change approaching; the knowing ones saw the indication before it was felt by the mass. The prices of provisions began to rise, and in a short time the only class that seemed to prosper was the farmer. The boot business fell to the lowest ebb; little or nothing to be done, and only the most ruinous prices paid for labor, ruinous to the laborer.

This state of things began to be felt in mid-summer, when it was too late for such as had land to cultivate it. Mr. Russel was caught with the rest. He had sold off a part of his farm, but he had many acres left. Winter came on with flour at twelve dollars a barrel, corn one dollar fifty cents a bushel, and potatoes a dollar and a quarter, and his cellar and garret both empty, and work hardly to be had if to be done for nothing. He had laid up some money, but by the time spring opened he could nearly see the bottom of his purse. But worse than all this was the result of his "not being exposed to all sorts of weather," but of his being *exposed* to the *confinement* of a *shop* and to the bench. His own system had become diseased, so that he was scarcely a day free from pain; and one of his sons had all the marks of a consumptive about him, and all the family were ailing most of the time. One day during the winter Mr. Russel happened in to his neighbor Burton's as they were just setting down to dinner, and beside the usual dishes found on a farmer's table, there was a large dish of apples, another of pears, and still another of grapes! "How on earth can you afford to buy such things these hard times?" inquired Mr. Russel.

"Buy," responded Mr. Burton, "these were not bought, we raised them!"

"What! you don't say you raised those grapes and the pears too!"

"Certainly I do! I did not raise them myself, but Anna raised the white grapes on her arbor, and Mary and Julia raised the purple ones on theirs, and Luther and Calvin raised the pears and apples.'

"Well," said Mr. Russel, "I'm going to beg one of each kind of the apples and of the pears and a bunch of each kind of grapes to carry home; and as sure as spring opens again, and I'm a live man, I'll go back to my old business of farming!"

ANTWERP RASPBERRIES.

The *Poughkeepsie* (*N. Y.*) *Eagle* gives a very good account of the details and extent of one branch of "Fruit Culture" thus:—

But few persons are aware of the extent and importance of this comparatively new branch of the Agricultural, or rather Horticultural business.

The most extensive operations in this part of the country, are carried on at Milton, Ulster county, although the fruit is largely cultivated in this county.

There are now about 100 acres of raspberries in bearing in the immediate vicinity of Milton, and immense quantities of plants are being set out every year.

A few days ago we visited the raspberry plantation of Nathaniel Hallock, at Milton, in order to learn the *modus operandi* of the culture. Mr. Hallock's being one of the principal plantations.

The pickers were in the fields with their baskets between eight and nine o'clock in the morning, as soon as the dew was off the plants, as the berries do not keep so well when picked wet.

In a short time the pickers began to bring in the baskets of berries. These baskets hold about a pint, and are very neat looking, being made of willow, and much superior to the baskets in which strawberries are sold, in fact the berries would hardly sell, if sent to New York in strawberry baskets.

There were about fifty pickers at work, men, women and children, the women being the most expert pickers of course. One person was employed constantly, and a part of the time several persons, in packing the baskets. The baskets, as soon as picked and examined, are packed into boxes of different sizes, according to the crop of that day. The object of putting them into boxes is to ensure their safe transit to the market, and in order to do this, the packer has to work carefully to fit the baskets in so that each one braces the other; when the boxes are filled to the top, the lid is closed and locked, and the boxes are ready for shipment.

The season lasts about six weeks, and this period is one continual round of business, the berries being sent off to New York every night except Saturday, (there being no sale for them on Sunday.)

The berries were all picked about six o'clock, and after supper they were conveyed to the landing, the baskets making two very heavy horse loads, and as near as we could calculate, the steamboat took off about 60,000 baskets that night, making about 20 tons of berries, exclusive of the weight of boxes and baskets.

The baskets are imported from France by hundreds of thousands every year, and although such quantities are manufactured every year, the supply is inadequate to the demand, the latter exceeding the former by about one-half.

The culture of the plants requires the services of a large number of people.

The pickers constitute a small army, there being from five to ten, and often more required for each acre, according to the time in the season, which was at its height this year about the second week in July.

The manufacture of the boxes in which the baskets of berries are packed is no small item, and the steamboats that carry this extra freight are obliged to employ extra men to handle it.

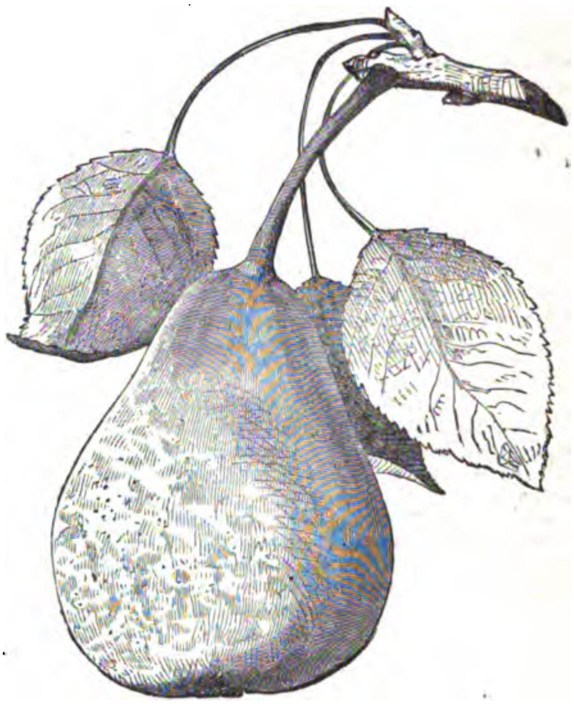
This business, though at first view it seems small, gives employment to, and distributes its gains among thousands of persons.

From the Milton landing, the average daily export is 10,000 baskets, and the retail price in New York averages about ten cents per basket; thus the product of 100 acres amounts to $1,000 per day, or $42,000 per season. We call to mind no other crop which produces as much per acre, or which gives employment to so many.

Bulbous Roots.—The *Magazine of Horticulture* says, what is in com mon language termed a bulbous root is by Linnæus termed the Hybernacle, or Winter Lodge of the young plant. These bulbs, in every respect, resemble buds, except in being produced under ground, and include the leaves and flower in miniature, which are to be expanded in the ensuing spring. By cautiously cutting, in the early spring, through the concentric coats of a tulip root, longitudinally from the top to the base, and taking them off successively, the whole flower of the next summer's tulip is beautifully seen by the naked eye, with its petals, pistil and stamens; the flowers exist in other bulbs, in the same manner, but the individual flowers of others being less, they are not so easily dissected, or so conspicuous to the naked eye. In the buds of the Daphne Mezeron, and in those of the Hepatica, and at the base of the Osmunda lunaria, a perfect plant of the future year may be found, complete in all its parts.

THE ROSTIEZER PEAR.

We are happy to acknowledge our obligations to James Hyde & Son, of Newton Centre, for the fruit from which our engraving was sketched.—When Downing wrote of it in 1845, it had not been sufficiently proved to enable him to speak confidently of its merits; but we believe the Messrs. Hyde, and other cultivators, have found it to be an excellent variety. It is a German pear, and was received from the nursery of the brothers Baumann, of Balwiller, on the Rhine.



It bears abundantly. Fruit of medium size, oblong-pyriform. Skin a dull yellowish green, with a reddish-brown cheek, and whitish dots, light russet. Stalk very long, nearly two inches, irregular, slender, set with very little depression. Calyx open, but little sunk. Flesh juicy, a little coarse, but very melting, sweet and delicious, with a rich perfume. August and September.

AGRICULTURE THE PROPER CALLING.

A most sensible writer in the *Country Gentleman* says:

All other pursuits are proper in there places, but when carried to too great an extent, produce poverty, distress, and misery. The more agriculture is pursued, the greater is the benefit to the human race. Here is a field for the philanthropist. Establish agriculture upon a good basis—the basis of intelligence—and you will do much to close what are now flood-gates of misery to society. Our city poor, our merchant clerks, our emigrant-poor, and our country poor, all call for relief; and here alone can it be obtained,—in intelligent husbandry. Agriculture is the great moving power of human existence, and as the human family increases we must but cling the closer to our mother earth for support. Thus the mandate, "to earn our bread by the sweat of our brow," becomes from our condition a matter of necessity; but in it we see the goodness and wisdom of our great law-giver, for "necessity is the mother of contrivance," we thus increase in intelligence, and intelligence promotes morality and happiness. In the dim but yet brightening future, we behold instead of cities over-crowded with human life and ragged pauperism stalking abroad, the whole face of nature one great Eden,—the sons of Adam all inheriting his estate. Agriculture exerts an influence to equalize the distribution of wealth, which no law nor theory, nor any other pursuit, has or ever can accomplish.

THIRD EXHIBITION OF THE U. S. AGRICULTURAL SOCIETY.

The third annual Exhibition of the United States Agricultural Society opened in this city on Tuesday, Oct. 23d, and continued through the week. The number of entries was very large, all the arrangements made with admirable taste and judgment, and the grounds were thronged by thousands of admiring visitors.

GENERAL ARRANGEMENTS.

The Exhibition is held on a lot of about thirty acres, in the south part of the city, which is enclosed with a board fence ten feet high. The main entrance is on Harrison Avenue, opposite Franklin Square. As the visitor approaches the ground from Franklin Square, the first thing that attracts his attention is the beautiful arch which spans this entrance, and which is supported by two noble towers forty feet in height. Over these towers wave the "Stars and Stripes." The arch bears the simple inscription, "U. S. AGRICULTURAL SOCIETY." On either side of the entrance are the windows for the sale of tickets. There are twenty of these—so that no delay need be apprehended in procuring tickets. Further south there is another entrance, over which a plain arch has been erected. Visitors with tickets will be admitted here also. Midway between these entrances, and opposite the judges' stand, is a wide gate, which will be opened at the conclusion of each day's exhibition, to allow the multitude to retire from the grounds.

When within the enclosure the visitor will be pleased with the excellent arrangement of the grounds. On the right of the main entrance are seats for ten thousand people. These seats are erected in the most substantial manner, and are capable of supporting a much greater weight than it will be possible to put upon them. From these seats a fine view of the whole field can be obtained. On the left of the main entrance the stalls for horses commence, and they and the cattle stalls are continued round the entire enclosure, until they reach the southerly end of the seats on Harrison Avenue. There are between six and seven hundred of them. The stalls are all covered with white duck, and a scalloped fringe runs along the front. This covering and festooning gives to the stalls a very neat and pretty appearance. Each breed of horses and cattle is arranged in a distinct department, which is designated by a large sign raised over the stalls they occupy.

The ranges for the sheep and swine are erected on the north-east corner of the lot. They are substantial pens, with roofs to protect the animals from the weather.

For the purpose of showing the horses to the best advantage, a fine track, forty feet wide and half a mile in length, has been prepared. It is of an oval form, with no sharp corners, and is rolled perfectly smooth and hard.

The Judges' stand is a large octagon tower, seventy feet high, with a piazza running all round the same on the ground line, making this floor twenty feet square, and two feet up from the ground; this will be occupied by the representatives of the press. Twelve feet above, is another floor, with a balcony running round the same, four feet outside the floor, to be occupied by the Judges. Above this there is still another story, which will be occupied by ladies. The tower is arched on every side and story, and is handsomely ornamented with brackets, rustics, ballustrades, and with American flags, one of which surmounts it, and others are extended from the different stories.

Just south of the tower is a music stand, made in the Gothic style. This is occupied by an excellent band of music.

Four water temples of the same style of architecture as the tower, are erected at different points of the green inside the race-track. At these the multitude will be enabled to slake their thirst with the pure Cochituate.

On the green, within the elipse, are several tents. The one which is nearest the main entrance is the President's Reception Tent. Another tent is devoted to the reporters, and others are provided for the accommodation of ladies. Directly in the rear of these tents, and in the centre of the elipse, is "Wright's mammoth tent," beneath which the grand agricultural banquet is to be held on Friday afternoon. It is floored, and will be lighted with gas. The tables will be spread for two thousand guests, and there is no doubt that every plate will be occupied. Among the eloquent men announced to be present are Messrs. Everett, Choate and Winthrop of our own State, and others from all parts of the Union. With favorable weather, this banquet will be a magnificent affair.

Across the track, and between that and the cattle pens, is another large tent, beneath which Mr. Wright has provided tables and the other necessary paraphernalia for feeding the multitudes from day to day.

On the easterly side of the enclosure, outside of the range of stalls, is a large wooden building, in which is the Executive Committee's room, which is furnished with sofas, lounges, &c. In the rear of this, is a large room in which are tables for each of the several committees to award premiums. In the centre are tables sufficiently large to dine three hundred persons at a time. Precisely at one o'clock each day, dinner will be on the table—and the officers of the society, their invited guests, including the representatives of the Press on the gronud, will dine there. Mr. Wilder, the President of the Society, will officiate at the head of the table each day.

OPENING OF THE EXHIBITION.

The weather was fine on Tuesday, and at an early hour, the visitors poured into the vast enclosure, and the scene upon the outside and in the streets leading to it exhibited an unusual amount of activity. The arrangement of the various tents, the trotting course, accommodations for the public, and for the large number of animals which were entered, presented a fine appearance.

Gen. Tyler, the chief marshal, and a host of assistants, appeared on the ground at an early hour, dressed in a neat gray uniform, with a style of hat of a comfortable character, got up for the occasion. A large police force was also present, and it is highly creditable to the crowd who were present, to say, that their behavior was such as to require no coercive measures to keep them in good order.

At ten o'clock the bugle sounded the call for the cavalcade, when Mr. Wilder, the president of the society, announced the exhibition open, to continue during the week. The cavalcade was headed by the chief marshal, and formed an exhibition which no one should fail to witness at some time before the close of this anniversary gathering. The cavalcade consisted of eighteen or twenty pairs of elegantly matched and beautiful horses, singly, in gigs and other carriages, and about eighty which were ridden or led, including some ten or fifteeen colts.

EXHIBITION OF STALLIONS AND MARES.

At 11 o'clock a call was made for the stallions, mares, &c., (roadsters,) for exhibition and trial of speed. These were driven round the track twice, the first time slowly, and the second time at full speed. Those who took part in it were—North Horse, owned by Mr. North; Morgan Empire, James H. Chamberlain; Boston Boy, Adams Carpenter; Ethan Allen, O. S. Rowe; Black Hawk, J. E. Wayne; Stokbridge Morgan, John Bullard: Brom Horse, Charles Boylsten; Black Hawk Chief, Edgar Hill; Morgan Hunter. The quickest time made was 1.24, (distance one-half mile,) this was made by Black Hawk Chief. Others made the half mile in 1.25, 1.34 and 1.36.

The next exhibition upon the track was of breeding mares, many of them with colts. Of these there were some twenty-five or thirty. Among those that attracted attention were the Mary Morgan, of Limerick, Me., 9 years old, and the Jenny Lind, 9 years old, of Vergennes, Vt., the last of the Black Hawk breed. There were also many others which made a fine appearance, and some of an ordinary character.

THE SOCIETY'S DINNER.

At precisely one o'clock a procession was formed at the President's tent, consisting of the officers of the Society and invited guests, and proceeded to the committee rooms, where an excellent and substantial dinner was in waiting, provided by Mr. John Wright, caterer for the Society. This dinner is a most excellent feature of the Society's arrangements—one peculiar to its itself, and one which evinces the liberality of its managers. Between two and three hundred gentlemen availed themselves of the Society's hospitality. The dining hall was ornamented with several beautiful paintings of cattle, landscape views, &c. After the dinner the list of committees was called, and as far as possible the vacancies were filled.

EXHIBITION OF PONIES.

The first exhibition after dinner was that of Ponies. A dozen or fifteen animals appeared under this head before the Judges—one half of which at least we should class as good sized horses. It may be a difficult point to decide just where the dividing line between a pony and a small horse lies—but in regard to one half of those on the track this afternoon the committee can certainly have no hesitation. There was one, a little black fellow about as large as a good sized New Foundland dog, which seemed to be the favorite of the spectators. The company cheered him loudly, and in acknowledging the compliment he put his heels higher than his head and landed his rider, a lad, flat on the track, while he himself retired into the green. He was caught and again mounted, but he was determined not to be ridden, and after dismounting his rider again he was lead off the track. A pair of beautiful bay ponies, attached to a light wagon, were driven by a young gentleman *two and a half years old*, a son of Genery Twitchell, Esq., the accomplished Superintendent of the Boston and Worcester Railroad. The young gentleman reined his steeds finely and semed to enjoy the sport very much.

TRIAL OF SPEED.

The exhibition closed with a trial of speed, open to all horses that have never trotted for money; exhibitors to drive, and to be persons who have never driven for money. Mile heats in harness, best three in five. The Judges were David Leavitt, of New York, Paran Stevens, of Boston, Lewis B. Brown, of New York, Anson Livingston, of New York, H. K. Libby, of Bangor. First premium, $200; second premium, $100.

Nineteen horses were brought upon the track, but upon its appearing that they were to start in classes of four each, immediately following each other, the parties drawing for a choice, one of the horses was withdrawn. It was stated in the outset that no horse would be allowed to compete for a premium, who had been trotted for money. The quickest time around the track twice, was made by the horse John Smith, owned by John C. Smith, of New Bedford. This mode of trial not proving satisfactory, the next heats, which were for the best two out of three, were carried out by each class trotting separately. The result of this, narrowed the contest down to the Vermont Boy, belonging to Mr. Gilman, and the Lexington, owned by David Benjamin. The time of the Vermont Boy was 2.40 and 2.36, but on account of some question relative to trotting heretofore on a wager, a decision upon the question of the claim was postponed until an investigation took place.

A GLANCE AT THE STALLS AND PENS.

Among the choice horses it may be naturally supposed that there are many of the Morgan and Black Hawk breeds. The Morgan Hunter, 5 years old, belonging to S. D. Barlow, Brandon, Vt., and the Morgan Empire, 11 years, George W. Chamberlain, Waltham, each weigh 1100 pounds; Norman, 12 years, F. Whittaker, South Malden, 1180 pounds; Morrill, Bulrush, Morgan and Messenger, 11 years, F. Merrill, Durville, Vt., 1200 pounds. Chester Lyon, by C. Lyon, imported, owned by William Ellis, Middlebury, Vt. 1400 pounds. A pair of matched horses, belonging to Dr. O. S. Saunders, Boston, weigh 2100 pounds; a pair owned by Edward Seavey, Boston, 2268, and a pair by N. E. Nims, 2400.

Russell, Harrington & Co. have a pair of grey draft horses weighing 2740, and a pair of white horses weighing about 2600. These are among the heavy horses. To mention all which are noticeable would require far more space than we have to use at this time.

The cattle on exhibition occupy a large space in the enclosure, and comprise choice specimens of Durham, Devon, Hereford, Jersey, Ayrshire and native breeds. It would be difficult among so many fine animals to single out any without doing injustice to others.

Romeo, a fine-looking animal, belonging to Mr. Morris, of Westchester Co., N. Y., a Durham, weighs 2025 pounds. Kirkleavington, 2¾ years, belonging to Paoli Lothrop, South Hadley Falls, weighs 2190.

N. G. Giddings, Exeter, N. H., exhibits a yoke of working oxen , native breed, weighing 4200 lbs. A pair of two year old Durham steers, D. W. Haynes, Readfield Me., weigh 3000. Leavitt & Hunt, Wolfboro', N. H., exhibit a pair of fat native cattle weighing 5000; W. S. Grant, Farmingdale, a seven year old ox weighing 2200, and James Eddy, Swanzey Mass., a five year old weighing 2760 pounds.

J. M. Drinkwater, of Cumberland, Me., has a beautiful grade oxen, six years old, weighing 4200 lbs. A. G. Cole, Buckfield, Me., exhibits an excellent pair of Curham steers, three years old, weight 3150 lbs. ; also a large pair of Durham oxen, six years old, weight 4000. B. V. French, Braintree, and Hon. Josiah Quincy, Sen. have some excellent oxen on the ground.

The sheep and swine also make a good appearance. Of the first-named there are the native Saxon, Silesian, Spanish and French Merinos, South Down and middle wooled, and of swine, some very fine specimens of the Suffolk, Essex and Berkshire breeds.

SECOND DAY—WEDNESDAY.

The elements appeared to have entered into a combination to see how uncomfortable and dreary a time they could make for the second day of the great exhibition. The storm which commenced on Tuesday evening, continued almost uninterruptedly through the night, and through the entire day. The rain fell in torrents, and at times the wind blew quite a smart gale. Under these circumstances the entire programme for the day was postponed. During the day there were no visitors on the ground except exhibitors and gentlemen serving on committees—and they were clothed in big pea-jackets, stout boots and mittens. A few of the more adventurous committee men made their examinations ; but the most of them postponed this duty until they could have more favorable weather. The owners of the animals on exhibition endeavored every way possible to shield their horses and cattle from the storm, but in spite of all their efforts, some of them had a most uncomfortable day. About noon many of the best horses were removed from the ground.

During the forenoon, the officers of the society and the committees met in the committee rooms, where the vacancies on the committees were filled.

At one o'clock, the officers and their guests with the committees dined together. After dinner, Mr. WILDER, the President, briefly expressed his regrets at the unpropitious state of the weather, which rendered it necessary to postpone the programme for the day. But he urged all to keep up good courage, and said he, we will come out right yet. We are here, and we mean to have a good time and fair weather before we go through. This announcement was received with much applause.

Bond's Cornet Band which was engaged for the day was on the ground, and took up their quarters beneath the Marshal's tent, where at intervals during the day they discoursed excellent music to a select audience.

THIRD DAY—THURSDAY.

The third day of the Exhibition opened with favorable prognostics. A keen wind which blew from the west, dispersed the rain-clouds that lowered so dismally yesterday, and soon rendered the exhibition grounds dry and comfortable.

As soon as the gates were opened, a continued stream of visitors began to pour into the enclosure, and from present appearances there will be a vast multitude in attendance upon the exhibition to-day. At an early hour the number of people on the ground was estimated at over 10,000

The programme assigned for the morning was deferred until after the entree of the grand Truckmen's Cavalcade. About 10 o'clock this noble array began to deploy upon the ground; and a most magnificent sight it was! Dressed in neat white frocks and dark pantaloons, and mounted upon generally large and fine horses, the manly, stalwart frames of the drivers showed to the best advantage. We never witnessed a finer body of workingmen, and the turnout fully maintained the ancient character of Boston truckmen. They mustered by actual count 617 strong, were marshaled in an efficient manner by Peter Dunbar, assisted by an active corps of assistants, and preceded by the Boston Brass Band. As they passed the circuit of the track, their unique uniforms blended grandly with the general appearance of the thousands of spectators lining the sides throughout its entire extent. After having twice accomplished the circuit they retired.

Judging from the crowds that are actually besieging the various entrances to the grounds, today's Exhibition must be pronounced most successful. At 12 o'clock, the ranges of seats provided by the Society, and capable of accommodating 6000 persons, were completely filled.

Around the large area of the race-track, the crowd was also immense. It is probable that more than 50,000 persons visited the exhibition this forenoon.

FOURTH DAY—FRIDAY.

The weather was fine, and the attendance, this day, very large. Early in the morning the track was taken possession of by those who desired to exhibit their horses, and a most animating spectacle ensued. At nine o'clock the working oxen were marshaled in line opposite their quarters, for the benefit of the Committee. This was a pleasing sight. Their stalwart forms, fair proportions and honest countenances, were fine to behold.

At 10 o'clock a grand cavalcade came off upon the course. This was a magnificent and imposing spectacle. First came the marshals, in their gray uniforms, then the brood mares and their colts, followed by the young stallions led by their grooms; next came horses of all work, harnessed to carriages of every description—gigs, sulkies, buggies and chaises; then followed the matched horses, forty-eight in number, with coaches and fine carriages in which were seated gentlemen and ladies; after these came the trotters, followed by a splendid draft team consisting of four large and noble bay horses attached to a large wagon. The whole number of horses was one hundred and seventy-seven.

At eleven o'clock there was a drawing match by the working oxen in the east section of the field, which was witnessed by a large crowd. The oxen were attached to a cart loaded with 6100 lbs. weight, which they were required to draw forward several rods, and also to back it to its original position. It was done by some of them with great ease, by others indifferently, and by others not at all. The farmers especially took much interest in this part of the proceedings.

At 11 o'clock there was a grand trial of speed on the part of fancy matched horses. The trial was in pairs.

After this the celebrated Drum Corps from New York appeared upon the course in front of the Judges' stand; they number sixteen, under the head of a Major, who without a word of command, but with a slight motion of the hand or head, made his order manifest. It was surprising to see the training of the corps, so prompt and decisive; now they swell out a roll of thunder, then allowed it to die away into a delicate pianisimo. The audience were highly gratified at the performance.

At one o'clock a trial of draft horses was had on the ground east of the Pavilion. This was attractive, and afforded much gratification to those who could not, from the press of the crowd, obtain a good view of the trotting.

The great feature of the day, the BANQUET, took place at two o'clock, beneath John Wright's big tent, which was erected in the centre of the ellipse. The procession was formed at the President's tent a few moments before two, and marched to the big tent, passing as they entered beneath an arch inscribed "SUCCESS TO AGRICULTURE." The tables were spread for over two thousand people, and nearly every plate was occupied. A blessing was asked by Rev. S. K. Lathrop, D. D., and after the feast, thanks were returned by Rev. E. N. Kirk, D. D. President Wilder presided, with his accustomed urbanity, and announced the regular sentiments, which were eloquently responded to by the following gentlemen :—Gov. Gardner, Mayor Smith Gov. Hoppin, of R. I., Daniel Landreth and Morton McMichael, of Philadelphia, John C. Gray, R. C. Winthrop, Edward Everett, Col. Thompson, of Canada West, and J. A. King, of New York. The premiums were then announced, by W. S. King, Secretary of the Society.

FIFTH DAY—SATURDAY.

The fair weather of Saturday brought a large crowd of people to witness the closing performances, the great attraction of which was the trotting matches, particularly that for the prize of three hundred dollars. Four horses started for the race —Ethan Allen, Stockbrige Chief, North and Columbus. The Chief was soon distanced and withdrawn. Ethan Allen won the first heat in 2.34¼, the second in 2.35, and was awarded the prize. His driver was Mr. Daniel Mace, of Cambridge. The race was won with the greatest ease, and the beautiful horse showed that he possessed a reserved speed, had it been required, that would have taken considerable from even the quick time made. The second premium was awarded to Columbus. The next performance was a trot between stallions of five years old and under, and the premium was won by the horse Romeo in two heats, of 2.57 and 2.58, White Mountain Morgan coming in second, Morgan Hunter being distanced in the first heat. The White Mountain colt was much admired for his grace and activity.

At three o'clock, the call for a trial of speed free to all horses and drivers, was responded to but by the horses Chicago Jack and Lady Litchfield. They were to run for the best three in five for $300 for the first prize and $100 for the second. The first two heats were won by Chicago Jack in 2.36 and 2.33; the last two by the Lady Litchfield in 2.37 and 2.36. On the last heat she came in first, in 2.38, but lost the race by the decision of the judges, who counted a habit she had of breaking, against her. Other favorite matches were also run.

Albert Golder, of Watertown, Me., a lad of twelve years, rode around the course on horseback, and won much applause by his admirable horsemanship. He made the time in 2.50. Other trots of interest also took place.

Owing to the great attraction on the track, but few persons attended the auction sale of stock by Mr. Hatch. He sold some $1100 worth, and then postponed the auction sale of horses to Monday.

The number in attendance during the several days of the exhibition could not have been less than from one hundred and fifty to one hundred and seventy-five thousand.

The receipts of the Society from all sources are from $32,000 to $35,000. This will undoubtedly pay all the premiums awarded by the committees, all the expenses, which must be very heavy, as every one will conceive who has seen the magnitude and beauty of the arrangements; and we hope will leave a good sum as the nucleus of a permanent fund for the promotion of the objects of the Society.

PREMIUMS.

CLASS NO. 1—CATTLE.

HERD PREMIUMS.

Durhams—1st premium, $100, to N. J. Becar, Smithtown, L. I.; 2d, diploma, Morris & Becar, Fordham, N. Y.; 3d, diploma, Paoli Lathrop, South Hadley, Mass.

Devons—1st premium, $100, C. L. Wainwright, N. Y., and $100 to L. G. Morris, Fordham, N. Y.; 2d, diploma, William Buckminster, Mass.

Ayrshire—1st premium, $100, Hungerford, Brodie & Converse, N. Y.

Herefords—1st premium, $100, Wm. H. Sotham, Owego, N. Y.

Jerseys—1st premium, Samuel Henshaw, Brookline, Mass.; 2d, $50, Thos. Motley, Jr., W. Roxbury.

Grades—1st premium, $100, Samuel Ellsworth, Barre, Mass.

Natives—1st premium, $100, A. G. Sheldon, Wilmington, Mass.

No. 2—DURHAM BULLS.

Bulls three years old and upwards—1st premium, $100, "Romeo," Morris & Becar, Fordham, N. Y.; 2d, $50, "Kirk Livingston," Paoli Lathrop, South Hadley, Mass.. 3d, diploma, "Duke," Calvin Sanford, Barre, Mass.

Bulls two years old—1st premium, $50, "Tallyho" N. J. Becar, Smithtown, L. I.; 2d, $25, "Sir Robert Peel," B. DeWolf, Bristol, R. I.

Bulls one year old—1st premium, $25, "Warwick," Samuel T. Tabor, Duchess County, N. Y.; 2d, $10, "Farnley," Simeon Leland, New Rochelle, N. Y.; 3d, diploma, "Echo of Oxford," N. J. Becar, Smithtown, L. I.

Durham Cows and Heifers—Cows three years old and upwards—1st premium, $100, to "Iris," Morris & Becar, Fordham, N. Y.; 2d premium, $50, "Bloom," L. G. Morris, Fordham, N. Y.; 3d, diploma, "Maid of Oxford," N. J. Becar, Smithtown, L. I.

Heifers, two years old and under three years—1st premium, $50, "Miss Belleville," N. J. Becar, Smithtown, L. I.; 2d premium, $25, "Minerva 4," Morris & Becar, Fordham, N. Y.; 3d, diploma, "Victoria 26," to the same.

Discretionary Premiums—P. Lathrop and G. M. Atwater, South Hadley, Mass.

Heifers, one year old and under—1st premium, $25, "Surprise," Morris & Bean, Fordham, N. Y.; 2d premium, $10, should have been awarded to "Victorine," owned by the same parties, but there being no competition, this could not be done.

The committee would also speak in the highest terms of a very superior heifer calf "Grace," owned by Morris & Bean, of Fordham, N. Y., but the premium list offered no premium on calves.

No. 3—Devon Bulls.

Bulls three years old and upwards—1st premium, $100, "Winchester," J. W. DeForest, Dover, N. Y.; 2d, diploma, "Frank Quartly," L. G. Morris, Fordham, N. Y.

Bulls two years old and under three years—1st premium, $50, "Blucher," W. R. Sanford, Orwell Vt; 2d premium, $25, Harvey Dodge, Sutton, Mass.; 3d, diploma, B. V. French, Braintree, Mass.

Bulls one year old and under two years—1st premium, $25, "Tecumseh," E. G. Faile, West Farms, N. Y.; 2d, $10, Wm. Buckminster, Framingham, Mass.; 3d, diploma, W. R. Sanford, Orwell, Vt.

Devon Cows and Heifers.

Three years old and upward—1st premium, $100, E. G. Faile, West Farms, N. Y.; 2d, diploma, L. G. Morris, Fordham, N. Y.; 3d, diploma, C. S. Wainwright, Rhinebeck, N. Y.; discretionary diplomas, L. G. Morris, Fordham, N. Y., and C. S. Wainwright, Rhinebeck, N. Y.

Two years old under three years—1st premium, $50, E. G. Faile, West Farms, N. Y.; 2d, diploma, $25, C. S. Wainwright, Rhinebeck, N.Y.; 3d, diploma, W. R. Sanford, Orwell, Vt.; discretionary diplomas, John C. Morse, Francistown, N. H., and Joseph Burnett, Southboro', Mass.

One year old and under two years—1st premium, $25, E. G. Faile, West Farms, N. Y; 2d premium, $10, C. S. Wainwright, Rhinebeck, N. Y.; discretionary diplomas, two to B. V. French, Braintree, Mass., and one to John G. Morse, Francistown, N. H.

Calves—Discretionary premium, $25, J. T. Andrew, West Cornwall, Ct.

No. 4—Ayrshire Bulls.

Bulls three years old and upwards—1st premium, $100 to "Kelburn," owned by Hungerford, Brodie & Converse, Ellisburg, N. Y.; 2d, $50, "Major," owned by G. W. Barrett.

Bulls two years old—None presented worthy of a premium, although three were exhibited to the Committee, and the same may be said of the yearling bulls of this class.

Ayrshire Cows and Heifers.

Cows three years old and upwards—1st premium, $100, "Mary Grey," Hungerford, Brodie & Converse, Ellisburg, N. Y.; 2d premium, $50, "Jessie" Robbins Battell, Norfolk, Ct.; 3d, diploma, "Alice," John Brooks, Princeton, Mass.

Heifers two years old—1st premium, $50, "Lady Ayr," Hungerford, Brodie & Converse, Ellisburg, N. Y.; 2d premium, $25, "Jessie 2d," R. Battell, Norfolk, Ct.; 3d, diploma, "Lady Gowan," Hungerford, Brodie & Converse, Ellisburg, N. Y.

Heifers one year old—Messrs. Hungerford, Brodie & Converse, of Ellisburg, N. Y., exhibited two very fine animals under this head, but the Committee under the rules of the Society, there being no competition, awarded the first premium only $25 to "Bessie," the youngest of the two.

No. 5.—Hereford Bulls.

Bulls three years old and upwards—1st premium, $100, Daniel Goodell, Brattleboro', Vt.; 2d, William H. Sotham, Owego, N. Y.

Hereford Cows and Heifers.

Three years old—1st premium, $100, "Milton," State Farm, Westboro', Mass.; 2d, $50, "Milton" William H. Sotham, Owego, N. Y.; 3d, diploma, C. B. Clarke, Concord, Mass.

Two years old—1st premium, C. B. Clarke, $50, Concord, Mass.; 2d premium, $25, Wm. H. Sotham, Owego, N. Y.

One year old—1st premium, $25, Wm. H. Sotham, Owego, N. Y.

No. 6—Jersey Bulls.

Bulls three years old and over—1st premium, $100, Thos. Motley, Jr., of Mass.

Bulls two years old—1st premium, $50, Joseph Burnett, Southboro', Mass.; 2d, $25, R. S. Rogers, Salem, Mass.

Bulls one year old—1st premium, $25, John Washburn, Swampscot, Mass.; 2d, $10, to Thomas Motley, Jr., Mass.; 3d, diploma, W. A. Harris, Mass.

Jersey Cows and Heifers.

Cows three years old and upwards—1st premium, $100, "Rose," G. H. French, Andover Mass.; 2d, $50, "Daphne," S. Henshaw, Brookline, Mass.; 3d, diploma, "Flirt," Thomas Motley, West Roxbury, Mass.

Heifers two years old—1st premium $50, "Duchess," S. R. Spalding; 2d, $25, "Topsy," G. H. French, Andover, Mass.; 3d, diploma, "Rosa," R. P. Waters, Beverly, Mass.

Heifers one year old—1st premium, C. L. Cunningham, Milton, Mass.; 2d, "Bess," O. H. French, Andover Mass.; 3d, "Buttercup," W. B. Bacon, Jamaica, Plain, Mass.

No. 7—Grade Cows.

Cows three years old and upwards—1st premium, $100, "Beauty," Geo. M. Barrett, Concord, Mass.; 2d, $50, "Genuine," Samuel Ellsworth, Barre Mass.; 3d, diploma, B. V. French, Braintree, Mass. Discretionary premium, $10, E. Sheldon, Cayuga County, N. Y.

Cows two years old and under three years—1st premium, $50, A. D. Weld, Roxbury, Mass.; 2d, $25, J. W. Hollis, Brighton, Mass.; 3d, diploma, Wm. Spencer, Lowell, Mass.

Cows one year old and under two years—1st premium, $25, W. H. Watson, Princeton, Mass.; 2d, $10, C. H. Keith, Malden, Mass.; 3d, diploma, Henry Sheldon, Cayuga County, N. Y.

The committee recommend a gratuity of $50 to Samuel Jaques, of Somerville, Mass., for his cow and calf, but, on account of considering the cow pure blood rather than grade, they were unable to include it in the latter class, and award it a premium as such.

Native Cows and Heifers.

Cows three years old and upwards—1st premium, $100, to Davis & Flint, Boston; 2d, $50, Daniel Higgins, of Malden; 3d, diploma, J. L. Barrett, Bridgewater.

Heifers two years old—1st premium, $50, A. & T. Jerome, of Bloomfield, Ct.; 2d, Henry D. Pierce, Hillsboro', N. H.; 3d, diploma, Obadiah Howland, Auburn, N. Y.

Under two years old—1st premium, $25, A. W. Copeland, Dorchester.

No. 9—Milch Cows

Cows five years old and upwards—1st premium, $100, W. W. Watson, Princeton, Mass.; 2d, $75, "Nonesuch," Davis & Flint, Boston; 3d, $50, A. M. Carleton, Chicopee, Mass.; 4th, "Fanny," C. M. Hovey, Cambridge, Mass.

Cows three years old and under five years—1st premium, $75, "Fanny," Wm. Eames, Worcester, Mass.; 2d, $50, "Dinah," Asa G. Sheldon, Wilmington; 3d, $25, "Nonesuch," Asa G. Sheldon, Wilmington; 4th, $15, O. Howland, Auburn, N. Y.

No. 10—Working Oxen.

1st premium, $100, J. M. Drinkwater, Cumberland, Me.; 2d, $50, Nathaniel G. Giddings, Exeter, N. H.; 3d, $25, Oliver Newman, Carthage, Me.; Discretionary premium, $5, E. Johnson, Auburn, N. Y.

The committee recommend the following:

Gratuities—$20, Simon Carpenter, Charlton; $15, Stephen A. Coburn, Lowell; $15, H. Sheldon, Cayuga, county, N. Y.; $10, C. H. & C. A. Smith, Vergennes, Vt.: $10, G. H. Shaw, Brookline; $10, Addison G. Cole, Buckfield; $5, John B. Newcombe, Norton; and diplomas to Nathan B. Reade, of Princeton, for best trained on exhibition; Hon. Josiah Quincy, for fine Devons; Hon. B. V. French, of Braintree, Wm. F. Wheeler, of Grafton, Harvey Dodge, of Sutton, William Buckminster, of Framingham, J. B. Moore, of Concord, Jas. Lawrence, of Groton; George Harvey, of Marlboro', G. K. Wright, of Keene. N. H., J. C. Sanborn, of Westboro', Moses D. Richardson, of Leominster, Larned Swallow, of Buckfield; J. D. G. Williams, of Raynham.

No. 11—Steers.

1st premium, $50, D. W. Haynes, Readfield, Me.; 2d, $25, A. M. Winslow, Putney, Vt.; 2d, $15, A. G. Cole, Readfield, Me.; Discretionary, $10, Elon Sheldon, Cayuga Co., N. Y.

No. 12—Fat Cattle.

On Bullocks—1st premium, $75, to Seth Bush, Westfield, Mass.; 2d, $50, James Eddy, Swansey, Mass.; 3d, $25, Sam'l Stebbins, Conway, Mass.

Fat Cows—1st premium, $50, to E. Munson, Auburn, N. Y.; 2d, $25, E. Sheldon, Cayuga Co., N. Y.

Fat Steers—Discretionary—1st premium, $50, to E. Munson, Auburn, N. Y.; 2d, $25, E. Sheldon, Cayuga Co., N. Y.; 3d, H. Sheldon, Cayuga Co., N. Y.

CLASS II—HORSES.

No. 13—Thorough Bred Horses and Mares.

Stallions—1st premium, $200, "Trustee," M. De Motte, New York; 2d, $100, "Logan," J. B. Monott, New York; 3d, $50, "Matchless," Wm. B. DeWolf, Bristol, R. I.; 4th, diploma, "Tricolor," Frederick Boyden. Topsfield.

Mares—1st premium, $150, "Fashion," L. G. & F. Morris, Fordham, N. Y.; discretionary premium, "Etiquette," L. G. & F. Morris, Fordham, N. Y.; do., "A La Mode," L. G. & F. Morris, Fordham, N. Y.

No. 14—Stallions and Mares (Roadsters.)

Stallions—1st premium, $200, "Ethan Allen," O. S. Roe & & Co., Cambridge, Mass.; 2d, $100, "North Horse," Lemuel North; 3d, diploma, "Boston Boy," A. Carpenter, Providence, R. I.

Mares—1st premium, $150, "Pet," W. P. Balch, Boston, Mass.; 2d, $100, "Lady Johnson," S. K. Johnson, North Andover.

No. 15—Stallions of General Use.

Four years old and upwards—1st premium, $200, "Young Morrell," Town & Troy, Barre, Vt.; 2d, $100, "Henry Clay," Rogers & Callender, Albany, N. Y.; 3d, $50, "Morgan Emperor," Harrison Bacon, Barre; 4th, $30, "Ashuelot Morgan," U. Bowen, Richmond, N. H.

The committee also recommended gratuities of $20 each to the following horses:—"North Star," Henry Olmstead, E. Hartford, Ct.; "Young Trustee," C. D. Freeland, Patterson, N. J.; "Stockbridge Chief," J. W. Bishop, Chatham 4 Corners, N. Y.; "Old Sherman Morgan," A. J. Congdon, Lancaster, N. H.; "Granite State Morgan," C. C. Whittaker, Farmington, N. H.; "State of Maine," J. Moody, Linconville, Me.; "Cornet," Iram Wood, Hancock, N. H.; R. Kelram, South Boston; "Wild Deer," Dean & Merrill, Fabins, N. Y.; F. Whitaker, South Malden.

No. 16—Stallions for General Use.

Three years old and under four years—1st premium, $150, "Nonpareil," Jas. F. Thorndike, New England Village; 2d, $75, "Iron Duke," Timothy F. Jackson, Jamaica, L. I. The committee not being able to discern any appreciable difference between the horses, "White Mountain," belonging to S. H. Edgerly, of Manchester, N. H., and "Andrew Jackson," belonging to Harrison Bacon, of Barre, Mass., recommend that a premium of $50 should be given to each.

[The chairman of the committee, in a note appended to his report, states that in a subsequent examination he found that "Iron Duke" was unsound, and therefore he recommends that "White Mountain" receive the second premium. The Executive Committee will decide the matter.]

No. 17—Stallions.

Two years old and under three years—First premium $50, "Leather Stocking," S. & D. Leavitt, Jr., Great Barrington, Mass.; 2d, $25, "Silver Cloud," T. T. Jackson, Jamaica, Long Island; 3d, $15, R. S. Denny, Clappville, Mass.; 4th, diploma James F. Thorndike, New England Village, Mass.

One year old and under two years—First premium, $30, "Flying Scud," F. W. Mott, Manhassett, L. I.; 2d, $20, "King Philip," J. B. DeWolf, Bristol, L. I.; 3d, diploma, "Young Trustee," D. H. Shaw, Patterson, N. J.

Breeding Mares and Fillies.

Mares three years old—1st premium, $150, "Jenny Lind," C. W. Sherman, Vergennes, Vt.; 2d, $100, "Lady Sutton," G., H. Shaw, Brookline, Mass.; 3d, 50, "Massachusetts Maid," R. S. Denny, Clappville; 4th, diploma, "Sally Jenkins," Harrison Bacon, Barre.

Fillies three years old—1st premium, $75, "Fanny Kemble," Thomas Goddard, Boston.

Fillies one year old—1st premium, $30, "Wild Maggie," E. S. Stowell, Cornwall, Vt.

The committee recommend the sum of $140 set apart for Fillies but not used in that department, with such additional sums as may be deemed proper, should be appropriated in suitable testimonials of merit to the following parties, the examination of whose superior mares has been a source of much gratification to your committee:

"Kate," belonging to Arthur W. Austin, West Roxbury; "Kate Hayes," Samuel Wheat, Putney, Vt.; "May Flower," John Dugan, Somerville; "Fanny Morgan," Henry Olmstead, East Hartford, Ct.; "Julia," J. F. DeWolf, Bristol, R. I.; "Leaping Fawn," S. W. Ellis, Providence, R. I.

No. 19—Matched Horses.

First premium, $100, David Saunderson, Somerville, Mass.; 2d, $75, Joseph Wright, Waterloo, N. Y.; 3d, $50, H. M. Pettigrew; 4th, $25, Horace Sarget, Springfield, Mass.

The committee would also recommend the following gratuities: J. Randall, Boston, Mass., $20; D. Leavitt, Great Barrington, Mass., $15; J. G. Bates, Boston, $10; diploma, each to Geo. P. Reed, Roxbury, N. E. Nimms, Boston, Samuel Twitchel, Jr., Buffalo, N. Y.

No. 20—Fancy Matched Horses.

First premium, $75, J. L. Mitchell, of Albany.

No. 20½—Ponies.

Matched ponies—The committee considering none of the entries under this class to be true ponies, awarded the first premium of $25 to a pair of pretty little horses or Canadian ponies owned by F. Lyon, Niagara Falls.

Single ponies—1st premium, $20, Frank Dale, Boston, Mass.

Discretionary premium—To a Grade Pony or small Horse, owned by J. Willie Boyd, of Boston, $10.

No. 21—Family Horses.

1st premium, $100, to the horse "Clifford," five years old, owned by Mr. E. Boynton, Lexington; 3d, $50, to "Frank Pierce," owned by G. N. Holmes, of North Bridgewater; 4th, $25, to the horse "Black Harriet," owned by W. K. Rhodes, of Providence, R. I.

The committee recommend to the four following horses the sum of $20 each:—"Lady Kate," owned by J. S. Williamson, of Dover Hill, N. J.; "Messenger," owned by Stephen White, of North Cambridge; "Morgan and Messenger," owned by M. C. Kenny, of Cambridge; "Bruno," owned by T. H. Leavitt, of Boston. Also to the four following gentlemen the sum of $10 each: G. H. Abrams, Chelsea, Mass.; R. M. Abbe, of Enfield, Ct.; B. M. Hunt, of Readfield, Me.; R. Shurtleff, of Bellows Falls, Vt.

No. 22—Draft Horses.

1st premium, $100, Russell, Harrington & Co., Boston, Mass.; 2d, $50, East Boston Sugar Refinery; 3d, $25, Page & Noyes, Boston, Mass.

Single Draft Horses—1st premium, $50, Robert Cowdin, Boston; 2d, $25, Caleb Thurston, Boston; 3d, diploma, Hubbard Pierce, Boston.

Discretionary premiums—To M. W. Goodell & Co., of Boston, $25; Edward Harris, of Morristown, N. J., $25.

No. 23—Trotting Horses on Tuesday.

1st premium, $200, "Vermont Boy," E. H. & F. Gilman, Montpelier, Vt.; 2d, $100, "Ripton," Mr. Barnard, Boston.

In regard to the "John Smith" horse and the "Benjamin" horse, the committee were satisfied that these horses have trotted for money on a public track and for an advertised purse, the proofs of which will be laid before the Society if necessary.

Trotting Horses that have never Trotted for Money, on Thursday.

1st premium, $200, "Genesee," Anson Livingston, New York City; 2d, $100 "Kate Miller," Daniel Mace, Boston, Mass.

No. 24—Trotting Match on Saturday.

1st premium $300, to Chicago Jack, entered by John Daniels; 2d, $100, to Lady Litchfield, entered by Daniel Mace.

CLASS III—SHEEP.

No. 25—Long Wool Sheep.

Buck, two years old and over—1st premium, $25, Hangerford, Brome & Converse, Ellisburg, N. Y.; 2d, $15, to the same, 3d, diploma, J. T. Andrew, West Cornwall, Ct.

Bucks under two years old—1st premium, $20, D. B. Haight, Dover Plains, N. Y.; 2d, $10 to the same; 3d, diploma, to Geo. Fox, New Ipswich, N. H.

Ewes, under two years—1st premium, $20, Hungerford, Brodie & Converse, Ellisburg, N. Y.; discretionary premiums, $15, for three wethers, to John T. Andrew, W. Cornwall, Ct.; $8, or a diploma, at owner's option, for two year old buck, to D. B. Haight, Dover Plains, N. Y.; $5, or a diploma, at owner's option, for two year old buck, Albert Kelley, Auburn, Mass.

No. 26—Middle Wool Sheep.

Bucks, over two years—1st premium, $25, L. G. Morris, Fordham, N. Y.; 2d, $15, D. B. Haight, Dover Plains, N. Y.

Bucks, under two years—1st premium, $20, L. G. Morris, Fordham, N. Y.; 3d, $10, and a diploma, George Hartshorn, Rahway, N. J.

Ewes over two years—1st premium, $25, L. G. Morris, Fordham, N. Y.; 2d, $15, D. B. Haight, Dover Plains, N. Y.

Ewes under two years—1st premium. $20, L. G. Morris, Fordnam, N. Y.; 3d, $10, D. B. Haight, Dover Plains, N. Y.

No. 27—Grade Sheep.

Gratuities—$15, for a pen of four bucks, Geo. Campbell, Westminster, Vt.; $15, for a pen of five ewes to the same.

No. 28—Silesian Merinos.

Bucks two years old and over—1st premium, $25, Chamberlain, Campbell & Ladd, Redbrook, N. Y.

Bucks under two years—1st premium, $20, to the same.

Ewes two years old and over—1st premium, $25, to the same.

Ewes under two years—1st premium, $20, to the same.

No. 29—French Merinos.

Ewes under two years—1st premium, $20, Chamberlain & Campbell, Redbrook, N. Y.; 2d, $10, Campbell & Chamberlain, Rutland, Vt.

No. 29—French Merinos.

The committee report that all the Sheep exhibited are owned by one person in part with different partners in each lot, and leave it to the Executive Committee to decide whether this disqualifies the Sheep from taking more than one premium, and that if the latter is the case, they would award them only the first premium.

If there was no partnership connection they would award the following premiums.

Bucks two years old and upwards—1st premium, $25, Chamberlain & Campbell, Redbrook, N. Y.; 2d, $15, Campbell & Chamberlain, Rutland, Vt.

Bucks under two years—1st premium, $30, Campbell & Chamberlain, Rutland, Vt.; 2d, $10, Chamberlain & Campbell, Redbrook, N. Y.

Ewes over two years—1st premium, $25, Campbell & Chamberlain, Rutland, Vt.; 2d, not awarded.

No. 30—Saxony Sheep.

Bucks two years old and upwards—1st premium, $25, Geo. Campbell, Westminster, Vt.; 2d, $15, W. R. Sanford, Orwell, Vt.

Bucks under two years—1st premium, $25, W. R. Sanford. Orwell, Vt.; 2d, $10, George Campbell, Westminster, Vt.

Ewes two years old and upwards—1st premium, $25, W. R. Sanford, Orwell, Vt.

Ewes under two years—1st premium, $20, W. R. Sanford Orwell, Vt.

No. 31—Suffolk Swine.

Boars two years old and upwards—1st premium, $25, I. & J. Stickney, Watertown, Mass.; 2d, $15, B. V. French, Braintree, Mass.; 3d, diploma, Lonsdale county, Smithfield, R. I.

Boars one year old and over—1st premium, $20, Joseph Kittredge, North Andover; 2d, $10, G. W. Wilson, Malden, Mass.; 3d, Diploma, Abner Haven, Framingham, Mass.

Sows two years old and over—1st premium, $25, I. & J. Stickney, Watertown, Mass.; 2d, $15, I. & J. Stickney, Watertown, Mass.; 3d, diploma, Joseph Kittredge, North Andover, Mass.

Sows one year old and under two years—1st premium, $20, I. & J. Stickney, Watertown, Mass.; 2d premium, $10, Abner Haven, Framingham, Mass.

Suffolk Pigs.

1st premium, $15, I. & J. Stickney, Watertown, Mass.; 2d premium, $10, Abner Haven, Framingham, Mass.

Discretionary premium, to G. W. Hildreth, of Greenfield Mass., for litter of Pigs, $10; to James A. Stearns, of Manchester, N. H., for fine Boar, $10; to G. W. Hildreth, of Greenfield, Mass., for fine Boar, $10; to B. V. French, of Braintree, Mass., for fine Sow, $10.

NO. 32—ESSEX BOARS.

Boars two years old and upwards—1st premium to L. G. Morris, New York, for Fisher Hobbs, $25; 2d, C. A. Stetson, New York, $15.

One year old and upwards—1st premium to L. G. Morris, New York, $20; 2d, C. B. Clark, Concord, Mass., $10; 3d, William A. Harris, Newton, diploma.

Sows, two years old and upwards—1st premium, to William A. Harris, Newton, Topsey, 3d, $25; 2d, L. G. Morris, New York, Aunt Cloe, $15; 3d, C. B. Clark. Concord, Mass., diploma.

One year old and upwards—1st premium to C. B. Clark, Concord, Mass., $20; 2d, L. G. Morris, New York, Topsey, 2d, $10; 3d, to L. G. Morris, diploma.

Essex Pigs—C. B. Clark, Concord, Mass., $15; also a diploma to the Sow Beauty, owned by George Bacon, of Brookline, Mass.

NO. 33—BOARS OF OTHER BREEDS.

Two years old and upwards—The committee being unable to decide on the respective merits of the Berkshire and Yorkshire [illegible], recommend a first premium on each breed, viz: [illegible] *two years old and upwards*—1st premium, $25, Y[illegible], Hungerford, Brodie & Converse, Ellisburg, N. Y.; 1st [illegible]m, $25, Berkshire Boar, L. G. Morris, Fordham, N. Y.; 2d, $[illegible] Berkshire Boar, L. G. Morris, Fordham, N. Y.

Boars one year old—Only one entry was made under this class, and the committee therefore award the 2d premium, $10, Berkshire Boar, L. G. Morris, Fordham, N. Y.

NO. 34—SOWS OF OTHER BREEDS.

Two years old and upwards—1st premium, $25, Joseph Tuttle, Dorchester, Mass.; 2d, $15, Charles R. Damon, Cochituate; discretionary premium, $10, J. A. Stearns, Manchester, N. H.

One year old and under two—1st premium, $20, Joseph Tuttle, Dorchester, Mass.; 2d, $10, L. G. Morris, Fordham. N. Y.

NO. 35—PIGS OF OTHER BREEDS.

The committee would report that there were no pigs of other breeds presented to them which answered the condition which required not less than six in a litter, and therefore made no award.

In cases where no mention is made of second and third premiums, they were not awarded by the committee.

CURING BACON WITHOUT SMOKE.

"O, the trouble folks have taken,
To smoke and spoil their bacon."

To smoke the best bacon, fat your hogs early and fat them well. By fattening early you make a great saving in food, and well fattened pork. Then kill as early as the weather will allow, and salt as soon as the animal heat is gone, with a plenty of the purest salt, and about half an ounce of saltpetre to one hundred pounds of pork.

As soon as the meat is salted to your taste, which will generally be in about five weeks, take it out, and if any of it has been covered with brine, let it drain a little. Then take black pepper, finely ground, and dust on the hock end as much as will stick, then hang it up in a good, clean, dry, airy place. If all this is done as it should be, (it ought to be done now,) you will have no further trouble with it, for by fly time in spring, your bacon is so well cured on the outside, that flies or bugs will not disturb it.

Curing bacon is like the Irishman's mode of making punch. He said:—"put in the sugar, then fill it up with whiskey, and every drop of water you put in after that spoils the punch." Just so with curing bacon, after following the directions given above, every "drop" of smoke you put about it spoils the bacon.—*Portage Democrat.*

MIXED DIET.—All the Grahamite philosophy in the world cannot contradict, by reason, the assertion, that a mixture of animal and vegetable food is best for man. To supply the daily loss of nitrogen, a healthy, laboring man, if living on bread alone, would require four and a half pounds—if on potatoes, eighteen pounds. This would overload the stomach with starch. One and three-fourths pounds of bread, and three ounces of cheese, would produce the same amount of nitrogen, without overloading the stomach with carbon, and producing indigestion.

HAVE WE A BURNS AMONGST US?

The foregoing question was in our mind when we had finished reading the following beautiful lines sent to us by one, who says, in the letter accompanying them, that they were composed while he was "engaged in the very poetical work of potato-digging." Several of his productions have appeared in our columns, but we think no one so beautiful as this. Write on, Mr. Canning,—the name you bear has already taken a lofty place in the British annals of eloquence—you may cause it to take a like position in the American annals of poetry.

For the New England Farmer.

INDIAN SUMMER.

BY THE "PEASANT BARD."

Soft falls the hazy light upon
The hill-side, plain and vale;
The yellow leaves bestrew my path,
As down the stream they sail.
I note them halting by the brink,
And idling as they run,
Or dancing o'er the ripples bright
That glimmer in the sun.

On yonder woody bank I hear
A rustling 'mid the leaves;
Borne on the still and hollow air
The sound my ear deceives;
I deem the heavy-treading kine
Are coming down the brae,
When nothing but a squirrel light
Is skipping there away.

The hunter's distant gun I hear
The forest echoes wake;
'Tis pity that such sullen sounds
The holy calm should break!
I fancy how with dying throes
The harmless quarry bleeds:—
How man but little mercy shows,
Who so much mercy needs!

A solitary bee a-field
Allured by these bright hours,
Flits like a fay before my eyes;—
She'll find no honey-flowers,
For they have perished; one by one
I marked them fade from view,
And nothing but the blackened stalk
Appears where late they grew.

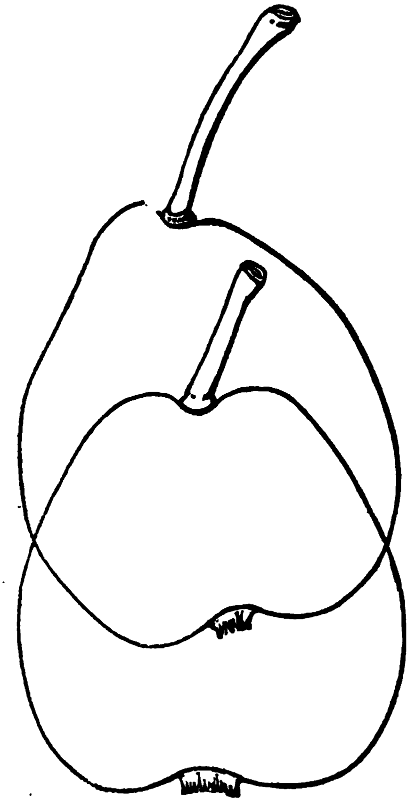
How kind, how pleasant is this sun,
When cold the winds have blown!
The winds that bear the early frosts
Down from the bleaker zone.
'Tis not the burning August sun,
Nor that of fierce July,
But soft effulgence lights the earth,
And glorifies the sky.

It is the Indian Summer time!
So full of placid joy;
The *dolce far niente* that
I dreamed of when a boy.
And it is like a blissful dream,
Like such it soon is past;
Too bright to linger with us long,
Too beautiful to last.

MADELEINE AND OSBAND PEARS.

The first of these outlines, the Madeleine, is a pear hardly of the medium size, but one of the most refreshing and excellent of the early pears, and Downing says the best at the time of its ripening, which is before the Bloodgood. It takes its name from its being in perfection, in France at the feast of St. Madeleine. The tree is fruitful and vigorous, with long erect olive-colored branches.

Elliott, in his fruit book, says, our Eastern pomologists class this pear as "best," but that the specimens he had tasted have not merited more than to be "very good." American. Native of Montgomery Co., Penn.



Madeleine, *Citron des Carmes.* Rather small; long turbinate; greenish lemon yellow, seldom a brownish cheek; stem long, stout; calyx small, nearly even with the surface; flesh whitish, melting, juicy, of sweet delicate flavor. 25 July to August 10. Tree very vigorous and productive. The best very early pear, yet it is liable to blight in tree and very little in fruit. Does well both on the pear and quince. Ripen in the house. Foreign.

Osband's Summer, *Summer Virgalieu.* Small medial; obovate; clear yellow, green dots, red cheek; stem an inch long, stout in a slight cavity; calyx large, basin shallow, flesh white, juicy, of a rich sugary, slightly musky flavor. 10 or 15 to 30 Aug. Popular in Western N. Y. Barry says, "Invariably first-rate." Productive. Does equally well on pear or quince. We find it a good grower. Origin near Palmyra, N. Y.

For the New England Farmer.

WILD RICE.

OR THE ZIZANA AQUATICA, OF PURSH.

BY S. P. FOWLER.

The natural productions of our country, unknown as they were to our early travellers and historians, seem to have especially attracted their notice, and they became very early acquainted with two of our staple productions—*viz*; Indian corn and tobacco. At a somewhat later period, there was another indigenous plant, whose discovery by our northern travellers was thought to be important, [illegible] the most sanguine expectations were entertained that it would soon take its place among the cultivated cereal grains, and become, as Pinkerton, [illegible] speaking of this interesting plant, says, the bread corn of the North. I here allude to the Wild Rice, sometimes called the Canada Rice, Water Oats, Indian Rice, and Minnesota Rice. I will here quote the relation of but one of many northern travellers, to show the high expectations raised by the discovery of this plant. In speaking of the Wild Rice as seen by him one hundred years since, he says,—"This grain, which grows in the greatest plenty throughout the interior parts of North America, is the most valuable of all the spontaneous productions of that country. In future periods it will be of great service to the infant colonies, as it will afford them a present support, until, in the course of cultivation, other supplies may be produced. We need not inform the reader of this article, that the high expectations, thus early raised in regard to the cultivation of the Wild Rice have not as yet been realized; although of late it has attracted some notice, and it is said, some successful attempts at cultivation have been made. It is found growing in the shallow lakes and streams of Michigan, Wisconsin, Iowa, Minnesota, and in the valley of the upper Mississippi and Missouri. It is gathered in large quantities by the Indians, principally by the females, when ripe, which is in September, in the following manner. They first prepare their canoe by cleaning it, and making it perfectly water-tight, and then shove it into the field of rice, bending the stalks in handfuls over the side of the canoe, and beat out the rice with paddles." The Wild Rice is found in Massachusetts growing at the edges of our ponds and shallow streams. We have seen it in a brook running into Pleasant Pond in Wenham, in the county of Essex, and in other places. The seeds are blackish, and about three-quarters of an inch long; within, they are white and farinaceous. It would seem by what has been said and written of the valuable properties of the Zizana, that it merits some attention from our farmers, with a view of cultivating it, and although the Wild Rice is strictly an aquatic plant, we see no reason why it may not be cultivated in an upland soil successfully, as it is well-known that many water plants will soon accommodate themselves to a comparatively dry soil, and thrive. Several years since, I received from one of the western States a quantity of the Wild Rice seed, which was procured from an Indian, which was planted in a suitable soil, but they failed to vegetate. The reason of their failing to come up was probably caused by the seed having been smoked by the Indians, a process used by them in the curing of this grain. This should be guarded against, by those procuring seed to plant. One objection to the cultivation of this plant might be the deciduous habit of this grain, as it drops into the water as soon as ripe. To prevent this waste when cultivated in the water, a lesson might be learned from the Indians, who are in the habit about the time that it begins to turn from its milky state and to ripen, to run their canoes into the midst of it, and tying bunches of it together, just below the ears, with bark, leave it in this situation three or four weeks longer, till it is perfectly ripe. Cultivation might change this habit of dropping its seeds, or the stalks, of the plant could be cut up before it was ripe.

According to Loudon, the Wild Rice has been introduced into England, and grows, as with us, around ponds and streams of water. In the present high prices of all cereal grains, it would seem very important and desirable that we should introduce the Zizana into cultivation, and thus realize the high anticipations of those, who have preceded us. There is another plant which merits attention from our farmers, *viz.* the Mountain Rice, *oryzopsis asperifolia* of Michaux. It is found in Massachusetts, in the interior of the State, but has not been seen to our knowledge on the seaboard. The seeds are white, about as long as rice, and farinaceous. Mr. Pursh says, I observed this grass on the broad mountains of Pennsylvania, and consider it worth the attention of farmers as the considerable large seeds contain the finest flour of any grain I know.

In closing this article I would remark, we have much to expect from the cultivation of any native plant, capable of bearing a valuable grain, by its being perfectly adapted to our climates, and its comparative exemption from diseases incident to the cereal grains of foreign origin. And while the wheat, rye, barley, &c., natives of other countries, are diseased and infested with insects, our Indian corn, a native of America, being at home, delights in our bright sun, and dry atmosphere, and is one of the most healthy plants we cultivate, and remarkably free from blight and diseases. S. P. F.

Danvers-port, Oct. 12, 1855.

THE MONTHLY FARMER.

It is well known to our readers, that we publish a *Weekly* and *Monthly* edition of the *New England Farmer*. The Weekly is in the common newspaper form, printed upon fine, white paper, and on new type. Its first page is always made up of agricultural reading, and the other three pages, of war, political, religious, mercantile, mechanical, manufacturing and miscellaneous intelligence—together with the prices current, carefully corrected, and a few advertisements. This part of the paper is conducted, solely, by WILLIAM SIMONDS, Esq., a gentleman of ability, and possessing great experience as a journalist. He resides in the country, but has his business office in Boston.

The *Monthly Farmer* is in Book form, and is made up each month from the agricultural matter on the first page of the weekly paper. Some of the leading characteristics of the *Monthly Farmer* are,

1. It is more valuable than any mere book upon agriculture, because it not only contains the general principles of the great Art, but because it is made up from the latest experiences of practical men upon the soils in our own localities.
2. The elegant manner and convenient form in which it is printed; making a handsome volume for the library when bound. The binding, in muslin, with gilt back and handsomely lettered, will cost but twenty-five cents.
3. The expensive engravings which illustrate the stock, plants, fruits, climbers, flowers, machines, buildings and fences, which are described in its columns.
4. The absence of long catalogues of premiums and programmes, which are only of temporary interest.
5. Its articles spring from leading principles in the art of agriculture, and will, therefore, be as valuable to the inquirer any future year, as at the present time.
6. Its writers are nearly all men of practical acquaintance with the business of the farmer.
7. Some of its writers are men of profound learning in the various arts and sciences, and particularly in chemistry, in its relations to agriculture.
8. The matter which has been collected and printed with so much care, is easily made available by a full and accurate index to the articles and illustrations and names of correspondents; so that any principle which has been discussed, or any fact recorded, may be referred to without loss of time.

These are some of the points which are prominent in the *Monthly Farmer*, and which we know have been appreciated, ***for its circulation has more than doubled during the last year!***

WORK, WORK!

I have seen and heard of people who thought it beneath them to work—to employ themselves industriously in some useful labor. Beneath them to work! Why, work is the motto of life; and he who accomplishes the most by his industry is the most truly great man. Aye, and is the most distinguished man among his fellow-creatures and his God—who so forgets the great blessings of life, as to allow his energies to stagnate in activity and uselessness, had better die; for, says the Holy Writ, "He that will work not, neither shall he eat." An idler is a cumberer of the ground, a weariness and a curse to himself, as well as to those around him.

Beneath human beings to work! Look in the artist's studio, the poet's garret, where the genius of Immortality stands ready to seal his works with her ineffaceable signet, and then you will only see industry standing by her side.

Beneath human beings to work! What but work has tilled our fields, clothed our bodies, built our houses, raised our churches, printed our books, cultivated our minds and souls? "Work out your own salvation," says the inspired Apostle to the Gentiles.—*Cornish Banner.*

For the New England Farmer.

LITTLE THINGS:

OR A WALK IN MY GARDEN.....No. 5.

ONIONS.

While gathering a few straggling onions from a large bed sown in the spring, I was led to inquire what can be done to get rid of the onion maggot. It is but seldom that a crop can be obtained in this vicinity. I tried one experiment of digging the earth entirely away from the bulb and allowing the stock to lie on the ground till the ravages of the worm were over. The hot sun was too much for them. But this is a tedious process. When a boy, I remember of seeing a succession of bountiful crops of onions raised on a bed where charcoal had been made. I want to wander a few moments from the garden to say a word respecting

CHARCOAL AS A MANURE.

The value of charcoal, in most cases, is usually set too high, at the expense of other substances. The old method of piling together twenty or thirty cords of hard wood, and covering it with turf and trenching the ground all around, not only furnishes charcoal, but what is of more value, an abundance of potash, soda, lime and phosphorus. Hence, great crops of wheat may be raised under such circumstances. A recent correspondent of the *Farmer* tells us how to burn up pine stumps on the ground. I will tell him of a method I once practised, from an article which I read in my boyhood from the *old N. E. Farmer*, which was, to dig a hole under the body of the stump and let it dry, put in some small wood, and before the fall rains bank it up as a coal pit, and set it on fire. It would coal out the body of the stump and render it easy to remove the roots. We always expected to raise huge potatoes on these spots.

Returning to the garden, I find myself looking at

AN EVERGREEN HEDGE.

Thousands of evergreens perish for want of a little knowledge in their management. The safest way is to transplant, from an open pasture, trees not more than two feet in height. My method is this; I take an old axe which I am not afraid to strike into the ground, and cut a circle round the tree, striking two or three times in the same place if necessary, and at a distance of a foot or more from the trunk; let one person take hold of the trunk close to the ground, and another higher up, and remove earth and all. An evergreen is worth nothing after the earth is removed. With two boys, I have in this way dug and carried in a cart three-fourths of a mile, seventy-five trees, and transplanted them in one half-day; and all but two or three lived, and grew about as well the first summer as if they had not been removed. There is a little secret to be learned in setting out a hedge. Instead of making a long trench first, I take off the turf and lay it one side, and then dig deep enough to set one tree, dig up the earth from the spot where the next tree is to be planted and use it to cover the roots of the preceding one. In this way there is no loss of earth in the grass, and you have ready access to every part of the tree. Evergreens will do better planted in grass land, or in the shade of other trees, where the intense heat of the sun is absorbed. It is almost impossible to make an evergreen live on the sunny-side of a white house, or on a very dusty street.

Persons from Massachusetts who wish for such trees, should send to some friend in Maine and request them to put them up in hogsheads, dug up in the way I have proposed, and they will nearly all live. Fifty trees, perhaps, might be packed in a hogshead at a trifling expense, and transported to any part of the State perfectly fresh. In regard to the time of transplanting, late in the fall, or early in the spring, are the only safe seasons. Planting them in clumps, so that they will shade each other, will ensure more complete success. The effect is more pleasing as an ornament than from a straight hedge.

N. T. T.

Bethel, Me., Nov. 1, 1855.

VALLEY OF THE YO-SEMITY,

AND ITS STUPENDOUS WATERFALLS.

The *Mariposa* (California) *Gazette* has published a communication from a Mr. J. M. Hutchings, who visited this valley in company with Messrs. Ayres and Millard, two gentlemen belonging in San Francisco, and Mr. Stair, of Coulterville. Assuming that these gentlemen are known to the editors of the *Mariposa Gazette*, and that the account is therefore reliable, we cannot but regard with wonder and admiration the scenery described. The party appears to have started from an Indian village on the Fresno with two Indian guides, and the writer says:—

"From Mr. Hunt's store we kept an east-of-north course up the divide between the Fresno and Chowchillah valleys; thence, descending toward the south fork of the Merced river and winding around a very rocky point, we climbed nearly to the ridge of the middle or main fork of the Merced, and, descending toward the Yo-Semity valley, came upon a high point clear of trees, whence we had our first view of this singular and romantic valley; and as the scene opened in full view before us, we were almost speechless with admiration at its wild and sublime grandeur.

"On the north side stands a bold perpendicular mountain of granite, shaped like an immense tower. Its lofty top is covered with great pines that, in the distance, seem like shrubs. Our Indian guides called this the 'Capitan.' It measures from the valley to its summit two thousand eight hundred feet.

"Just opposite this, on the south side of the valley, our attention was attracted by a magnificent waterfall about seven hundred feet in height. It looked like a long broad feather of silver depending over a precipice; and, as this feathery tail of leaping spray thus hung, a slight breeze moved it from side to side, and, as the last rays of the setting sun were tinging it with rainbow hues, the red would mix with the purple, and the purple with the yellow, and the yellow with the green, and the green with the silvery sheen of its whitened foam as it danced in space!

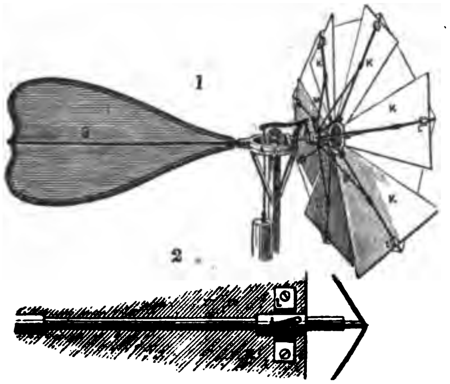
"Passing further up the valley, we were struck with the awful grandeur of the immense mountains on either side, some perpendicular, and some a little sloping. One looks like a light-house, another like a giant capital of immense dimensions; all are singular and surmounted by pines.

"We crossed the river, and, still advancing up the valley, turned a point, and before us was an indescribable sight—a waterfall two thousand two hundred feet in height, the highest in the world.

It rushes over the cliffs, and, with one bold leap, falls one thousand two hundred feet, then a second of five hundred feet, then a third of over five hundred feet; the three leaps making two thousand two hundred feet.

"Standing upon the opposite side of the valley and looking at the tall pines below, the great height of these falls can at a glance be comprehended.

"About ten miles from the lower end of the valley there is another fall of not less than fifteen hundred feet. This, with smaller falls and a lake, mark the head of the Yo-Semity valley, which is, therefore, about ten miles in length and from a half to one mile in width. Although there is good land enough for several farms, it cannot be considered upon the whole as a good farming valley; but speckled trout, grouse and pigeons are plentiful."



THE VERMONT WIND-MILL.

INVENTED BY A. P. BROWN, OF BRATTLEBORO', VT.

The advantage of using wind in preference to horse or steam-power has not been duly appreciated by farmers and mechanics. All the difficulties in using wind-power to advantage are overcome in the mill above represented. It is ingenious, simple, and a most perfect regulator of its own motion. It spreads a wide sail to light breeze, and a small surface to a heavy one. An accelerated motion is checked by the action by the mill itself as readily as the steam-engine is checked by the action of *Watt's centrifugal governor.*

Its construction will be readily understood by reference to the engraving. The radical feature in which this machine differs from others is simply this: it governs the obliquity of its own fans, *k*, to the wind by means of the centrifugal force of those fans. Each is furnished with a helical or spiral slot and pin, made fast in the arm, as seen at *i*, fig. 2. In case of acceleration, the tendency of the fans is to overcome a suitable coiled spring, or a weighted lever, and to move farther out on their respective arms, and in so doing the spiral groove, or slot, slides on the pin and turns the fan more and more edgewise to the wind, presenting *less* surface. When the velocity of the wheel is diminished, the spring or weight immediately draws the fans in an opposite direction, and the same slot and pin turn them more to the wind, always adjusting itself to the necessities of the occasion.

FARMERS and others in want of a cheap motive power, should look to the inducements offered of putting up wind-mills upon their farms or premises. It may be used very economically to pump water for irrigating or draining land, watering cattle, or for household purposes to the tops of houses. It may be used, and will operate very satisfactorily, to thrash and clean all kinds of grain, to shell corn, and grind wheat, rye, corn, or any other thing to be ground, cut, or mashed, such as apples, roots, vegetables, etc. It is particularly adapted to churning, working butter, washing, turning grindstones, sawing wood, cutting straw, and stalks, or fodder. It will bore and mortise timber, drive small saw-mills, lath-machines, turning-lathes, etc. etc., and if you wish, it will ventilate your house exceedingly well. It will not plow, harrow, cultivate, or mow, but any work which can be brought to it may be performed; and it will perform readily, without waiting to be caught, fed, or harnessed. The only food these mills require is about one gallon of oil a year.

They do not require as much nursing and attention as horses or oxen, one coat of paint will keep them clean and beautiful a year or more. The attachments used to connect them to different machines, so as to do different kinds of work, cost less than the harness and equipage of horses, and will last more than twice as long. The expense for repairs is much less than that for the shoeing and preparing of teams for labor. The same amount of power costs less, and the wind power will not die. Wind-mills will work by night as well as by day, and will run steadily without a driver. They are generally ready to work the greatest number of hours when their work is most needed, viz., in the fall, winter, and spring. They do not regard the ten-hour system, but work early and late, summer and winter.

Any particular information concerning these mills may be obtained of FOWLER AND WELLS, 308 Broadway, New York, who are manufacturing ten different sizes, ranging from $35 to $350 each.

GRANITE DUST, A RICH LAND MANURE.—While at Northbridge, Mass. on Wednesday of last week, examining the granite quarries at that place, I had a conversation with the workmen, engaged in dressing out that stone, and inquired of them in reference to the effect of the *fine dust* upon vegetation when thrown on the ground. They informed me that its effect upon grass was astonishing, and that it has been used in gardens with great success. This is a very important fact in agricultural science. Granite is composed of felspar, mica, and quartz, and the felspar contains about fourteen per cent. of potash. In my researches in New Hampshire I found a very great abundance of felspar. It is easily reduced to an impalpable powder by means of a portable iron mill, such as is made by Mr. Bogardus of New York. The cost will be trifling. The discovery, if carried into operation to the extent that it may be, may make New Hampshire one of the richest agricultural States in the Union, and I take great pleasure in making it public.—*Portsmouth Journal.*

NEW BOOKS.

The Muck Manual, by Samuel L. Dana, of Lowell: a new edition, with an additional chapter on "bones, superphosphate of lime, and its preparation." We have often spoken of this work as of importance to all who cultivate the soil.

The general subjects discussed are—Geology of soil; chemical constitution of rocks and soils; the elements of soil, their properties and chemical action; the organic constituents of soil; the mutual action of the organic and inorganic elements of soil; manure; artificial manures and irrigation; physical properties of soil, and bones; superphosphate of lime, and its preparation. Price $1,00.

The Rabbit Fancier, by C. N. Bement, Albany. This is a treatise upon the breeding, rearing, feeding, and general management of Rabbits; with remarks upon their diseases and remedies. An admirable way to interest children is to supply them with a pair of these pretty animals, where the situation will allow of their being kept, and then they will need the Rabbit Fancier to teach them the true course of management. Handsomely illustrated. Price 50 cents.

The Vine-Dresser's Manual, by Charles Reemerlin, of Ohio. This work, of 103 pages, gives minute directions for the choice of location and soil, preparation of the ground, kind of grapes to cultivate, trellis work, trimming, gathering, manuring, and wine-making. Price 50 cents.

The Stable Book, by John W. Stewart, veterinary surgeon, Glasgow, with notes and additions, adapting it to American food and climate, by A. B. Allen, Editor of the *American Agriculturist*. Illustrated with twenty-three engravings. An excellent work for any who use the horse. Price $1,00.

All these works are issued by Saxton & Co., Agricultural publishers, N. Y. They are handsomely printed and bound, and for sale by S. R. Whipple & Co., and Ruggles, Nourse, Mason & Co., Boston.

Instruction in Agriculture.—In the kingdom of Prussia there are five Agricultural Colleges, and a sixth is about to be opened; in these are taught by both theory and practice, the highest branches of science connected with the culture and improvement of the soil; of Agricultural schools of a more elementary order, there are ten; there are also seven schools devoted to instruction in the culture of flax; two specially devoted to instruction in the management of meadow lands; one for instruction in the management of sheep: and there are also forty-five model farms, intended to serve in introducing better modes of agriculture; in all, seventy-one public establishments for agricultural education, not to mention others of a kindred nature, or those private schools where the art and science of good farming are taught.

Prussia is a monarchy, with fifteen millions of people. New York is a republic, with three millions, and a territory, which, though not quite half as large, is richer and better situated, with means of transportation incomparably superior. Prussia has seventy-one public establishments to instruct her people in farming, the science of sciences, and the art of arts. New York has not one; and the proposition to establish a single Agricultural College has again and again been voted down in her Legislature. Ought so shameful a contrast to exist between that monarchy and this republic.—*Tribune.*

For the New England Farmer.

GREEN CORN FOR SOILING.

In the October number of the *Farmer*, I find that the milk-producing qualities of green corn have been called in question, by one at least, who seems to have had opportunity of testing their value for such a purpose, and that you, Mr. Editor, like the "rest of mankind," are quite confident in your opinion respecting the utility of raising and feeding it for the purpose above mentioned. Your opinion, so far as my knowledge extends, coincides with that of nearly all who have written upon the subject. Our agricultural papers, our patent office reports, together with the oral testimony of many excellent practical farmers, furnish a mass of evidence in favor of using green corn for milch cows, to which individual experience, of an opposite character, can oppose but little weight or influence. And yet I must say, that, so far as my own experience goes, I have found this kind of feed to fall far short of the expectation which its numerous commendations would strictly justify, and have sometimes been inclined to regard it, for producing milk, as almost worthless, and even injurious. That it contains some nutriment, and that cattle may subsist better with than without it, along with a moderate supply of other food, or that it is better, under certain circumstances, than nothing, I do not doubt; but for working cattle, horses, or milch cows, when given in a crude state, I do think it a very poor substitute for good hay or grass. So far as appearances go, very few kinds of food would seem better adapted to produce an abundant flow of milk than this, and such I have expected, in accordance with opinions so generally and confidently expressed, would be the result in my own practice; a result which I have never yet reached, with several years of experience.

An acquaintance of mine, and a careful observer of the habits of cattle, once told me that green stalks should never be fed to cows in the morning, previously to going to pasture, as they would so far injure the animals' appetite for grass, that instead of feeding as they otherwise would, on more nutritious food, they would go and lie much of the day in the shade.

Whether it does satisfy the appetite, without yielding corresponding support, I cannot say, but am inclined to that belief. In its various stages of growth, from that of the tender plant, to the fully grown stalk, green corn—other things being equal, contains, acording to analytical experiment, from eighty-four to ninety-four per cent. of water. It contains as great a per centage of water when nearly full grown, as at any other time; and of course as little solid or nutritious matter as at any other time, unless the saccharine juice with which it is charged possesses that quality, which is quite improbable. Were this juice extracted and fed to the animal alone, it would, doubtless, pine away and die. Nor can it be expected that the small amount of solid, say six to ten per cent. that is consumed along with it, will of itself be sufficient to counteract the deleterious effects of so large a share of juice, and at the same time, keep the animal in a healthy and thriving condition.

At the commencement of feeding stalks, cows will not generally eat much of them, unless they are partly cured, which goes, I think, to show, that the juice which they contain is not, at the time, highly relished by them.

Three years ago I fed seven cows quite liberally, for a month or more, on green stalks. My custom was to feed in the morning, as it was the only convenient time of doing it, and to scatter the stalks over a portion of an adjoining pasture on which they had not of late been fed, so as to give them as clean a place for eating as possible, taking care to give them much more than they would immediately consume, which they would generally finish off in the course of the day. I could not perceive that the stalks made much if any difference in the quantity of milk produced, but the cows continued to give less and less about as the grass failed them, although they continued to consume a proportionably larger amount of stalks. I have this fall made another trial of this kind of feed, and with results less flattering than before. For several weeks I could not conveniently furnish my cows with any but the poorest pasturage, but attempted to make up this deficiency by feeding them what stalks they would eat at night and morning.

But they did not thrive or even hold their own on this kind of keeping, but began to appear gaunt, were dissatisfied with their condition, which they manifested by being cross and ill-natured towards each other, and by a disposition to roam abroad, whenever an opportunity was presented, in quest of something more satisfying. And worse than all, some five or six of the seven cows thus treated, commenced witholding their milk entirely for half the time or more, so that I feared that all, a new milch cow included, would become entirely dry before I could give them a change of feed. Finally I began to practice reform; gave them yellow pumpkins, carrots, cabbages and good rowen feed; but they have not yet, after the lapse of a month, recovered from the effects of *dieting* on green corn! I once kept a horse for a few days on the same kind of food, with the ordinary supply of grain, but as it seemed not to be doing well, I soon discontinued it. The horse drank but very little water during the time it was thus kept, refusing it, some days, entirely.

If the cows were, in like manner, affected by the stalks, as is highly probable, that may account, in part, for their drying. I have, in a few instances, fed ears of corn with the stalks as they were cultivated for a field crop, so as to produce an increase of milk. I would advise those who may have stalks to feed, whether green or dry, not to feed them entirely alone, but with other kinds of feed. Some years since, I fed a yoke of oxen entirely on stalks nearly, or quite through the winter. They *appeared* to be doing well during all this time. They were playful and lively, and their hair was bright, but when put to doing the spring work of the farm, they were greatly deficient in strength and durability.

Thus I have given you, briefly, my experience in part, hoping that a further and more careful examination of the subject, by practical men, may lead to more reliable and satisfactory results. It is very important that something of abundant and rapid growth should be available as a substitute for the ordinary supply of feed in case of drought, but I apprehend that those who may depend almost entirely on green corn for such a purpose, are destined to meet with disappointment. C. BLAKELY.

Bristol, Ct.

PROSPECTS.

If an increase of business is an evidence of *Success*, we are abundantly assured that our efforts to furnish to the farmer the materials for more thorough and efficient operations upon his lands, and thereby to increase his annual profits, have not failed of their object. New friends have come to us from every quarter, both as subscribers and contributors. The list of the *Monthly Farmer* has more than doubled during the past year, while large additions have been made to the *Weekly*, so that we have the prospect of starting on the new year with a combined edition of some *Twenty-four Thousand* copies. This will enable us to carry out designs long contemplated, of furnishing more and better engravings, and in various ways, of giving the paper a greater value. We have recently expended several hundred dollars for designs and engravings, which will be given from time to time, and which, while they will elegantly illustrate the work, will also add to its practical character.

We have no important changes to announce, with the exception, perhaps, that we may obtain regular contributions from the able pen of Prof. NASH, of Amherst. Each of the Editors will remain at his post, and devote himself to the appropriate duties of his charge, whiie our numerous and able correspondents will faithfully contribute to the common weal of all.

Such are the encouraging prospects for the year 1856. We have bowed out the Old Year with such grace as we could command, and have buckled on the harness with stout and cheerful hearts for the labors of the New. It is but a matter of *"changing work"* between us, after all. So let us go at it with a will, and make this year what we shall wish it may have been when we have got through it.

WAR AND AGRICULTURE.—The United States army consists of about 10,000 men, and costs $8,525,240 a year. All the result is, a few ragged uniforms, dismantled forts, rusty guns, and still more ragged and rusty characters called *veterans*.

The Illinois central railroad has about the same number of men who, receive from the company, $3,700,000 per annum, and make over one hundred miles of railroad each year.

"THE LITTLE BUSY BEE."

The following is a part of a lecture on the "Habits and Instincts of Bees," delivered before the Philadelphia Spring Garden Institute, during the early part of December, 1854, by the Rev. L. L. Langstroth, of Greenfield, Mass. Mr. L. is the author of a most interesting work on Bees, from which we have occasionally quoted. We do not believe that the Curators of our Lyceums could offer a more attractive and pleasing subject to their audiences than one or two lectures from Mr. L. on this topic. His work, while highly instructive, has at the same time the fascination of a well-wrought novel; and his lectures, delivered in an easy, conversational style, would not fail to be gratifying to any class of hearers.

The honey bee belongs to the class of insects which live in a perfect community; indeed, bees can flourish only when associated in large numbers as a colony. In a solitary state, a single bee would be almost as helpless as a new-born child, and would be unable to endure even the ordinary chill of an autumnal night. If a family of bees is examined before it sends off a new colony in the spring, three different kinds of bees will be found in the hive:—1. One bee of peculiar shape, commonly called the queen bee. 2. A number of large bees, called drones. 3. Many thousands of a smaller kind, called workers, and similar to those which are seen on the blossoms. A large number of the cells will be found filled with honey and bee-bread, while vast numbers contain eggs and immature young—a few cells of unusual size and shape being devoted to the rearing of the young queens.

The queen bee is the only perfect female in the hive, and all the eggs are laid by her. The drones are the males, and so imperfectly developed that they are incapable of laying eggs, and retain the instinct only so far as to give the most devoted attention to feeding and rearing the young. The queen-bee or, as she ought more properly to be called, the mother bee, is the common mother of the whole colony. She reigns, therefore, most unquestionably, by a divine right, as every good mother is, or at least ought to be, in the bosom of her own family. The fertility of the queen bee is very great. She will often lay as many as three thousand eggs in a single day.

As the common bees never attain the age of a single year, a constant succession of young bees must be added to the hive; and therefore, no colony can long exist without the presence of this important insect. She is as absolutely necessary to its welfare as the soul is to the body. The queen bee is treated by the bees as every mother ought to be by her children, with the most unbounded respect and affection. A circle of her loving offspring constantly surrounds her, testifying in different ways their dutiful regard—offering her honey from time to time, most affectionately embracing her with their antennæ, and carefully smoothing her beautiful plumage. In the frontispiece of my treatise on bees I have given an exact representation of the attitude in which they gather around her. If she wishes to travel over the combs, they not only make way for her, but most politely back out of her presence, and ever seem intent on doing all that they can to promote her comfort and happiness. How ought such a beautiful example to put to the blush those undutiful children who treat their mothers with irreverence and neglect, and who, instead of striving with loving zeal to lighten their labors and save their steps, treat them more as though they were servants hired only to wait upon every whim, and humor every caprice.

If the queen is taken from the bees, as soon as they ascertain their loss, the whole colony is thrown into a state of the most intense agitation; all the labors of the hive are at once abandoned; the bees run over the comb in wild despair, and often the whole of them rush forth from the hive in anxious search for their beloved mother. When they return to their now desolate home, by their mournful tones they manifest the deepest sense of their deplorable calamity. Their note at such times is of a peculiarly sorrowful character; sounding something like a succession of wailings on the minor key, and can no more be mistaken by the experienced apiarian or bee manager for their ordinary happy hum, than the piteous moanings of a sick child can be confounded by an anxious mother with its joyous crowings, when overflowing with health and happiness. Even after the bees have recovered from their first distraction of grief, they plainly manifest that some overwhelming calamity has befallen them. Often those that have visited the fields, instead of entering the hive with that dispatchful haste so characteristic of a bee returning to a happy home, linger about the entrance with a dissatisfied look. Their home, like that of a man who is cursed rather than blessed in his domestic relations, is such a melancholy place that they enter it only with reluctant and slow moving steps.

The defence of the colony against numerous enemies, the construction of the combs, the providing of stores, the rearing of the young, and in short, the whole work of the hive—the laying of eggs excepted—is carried on by the industrious workers. There may be gentlemen of leisure in the commonwealth of bees; but most assuredly, there are no such ladies, either of high or low degree. The queen herself has her full share of duties; for it must be admitted that the royal office is no sinecure, when the mother who fills it must superintend daily the proper disposition of some two or three thousand eggs. It is very true that the drones

"On others' toils in pampered leisure thrive,
The lazy fathers of the industrious hive."

But then, as a penalty for this exemption from labor, at the close of the summer they are all ignominiously put to death.

Bees sometimes act the part of highway robbers; a number of them will waylay and attack a humble bee, which like an honest trader jogging home with a well-filled purse, is returning with a sack full of honey to his nest. They seize the poor fellow and give him at once to understand that they are determined to have his hard-earned sweets. They do not kill him, for they are much too selfish to endanger their own precious persons; and even if they could take his life without losing their stings—a loss which is always fatal—they would still be unable to extract his treasures from the deep recesses of his honey bag.

They, therefore, begin to bite and tease him after the most approved fashion, all the time singing in his ears, not your money, but "your honey or your life," till utterly worn out, he delivers up his purse by disgorging his honey from its spacious receptacle. The graceless creatures release him at once, while they lick up his spoil and carry off to their homes.

THE CLOSE OF THE YEAR.

Another of the distinctly marked periods of our existence has now passed away—another of those twelvemonth circles, so filled with alternating hope and fear, and joy, and sorrow, and so diversified in the cares and duties which it has presented as it rolled along, is now numbered with those which have for ages successively gone before it. Many who kindly listened to our suggestions at the close of the last year, can listen now no longer; the ear is dull, the tongue dumb; the eye hath lost its fire, the hand its power. Their Spring, and Summer, and Autumn, and Winter, have come to them, and passed, and they are numbered with that great congregation, which has been called to an existence, where times and seasons are not known. Such is the fiat of Him who has called us and all this great world into existence, and who knows all our emotions, and without whose knowledge a sparrow, even, cannot fall to the ground.

He has ordered all things aright, and acquiescence in His will becomes us all. "Though, at the approach of winter, the country is desolate, and stripped of its most beautiful ornaments, it still presents, to a properly organized mind, the image of happiness. We may say with gratitude, Here we have seen the corn grow, and these dry fields crowned with an abundant harvest; and notwithstanding the orchards and gardens are now deserted, the remembrance of the presents we have received from them, inspires us with joy, though we are exposed to the influence of the north wind."

Nearly all the duties of the Farmer are emblematic of our condition in life. The Spring is full of Hope—Summer of Activity—Autumn of Fruition, and Winter of calm Contentment, and contemplation of a Year or a Life well-spent. "The fruit trees have now shed their leaves; the snows or rains fall in heavy showers; the roads are impaired, and walking abroad is almost impracticable. The man who has no resources in himself murmurs at this change; but the considerate, thinking man contemplates it with satisfaction. The sere leaves and withered grass, moistened by the autumnal rains, form a rich manure to fertilize the land. This consideration, and the sweet expectation of Spring, naturally ought to excite our gratitude for the tender cares of our Creator, and inspire us with a perfect confidence in Him. Whilst the earth has lost its beauty and external charms, and is exposed to the murmurs of those it has nourished and delighted, it has commenced its labors anew, and is busily employed in secret working for future good."

There are rich compensations, then, for these seeming evils. If the sun is obscured, wild winds sweep the earth, and gloom rests upon the hills, how these increase the comforts of the warm hearth, the cheerful fire, the gathered household, and all the dear delights of domestic love! He who has faithfully discharged the duties of the fleeting year, whose mind is established on the principles of truth, will not find the winter one of discontent, but will be able to declare with the poet—

"My minde to me a kingdom is,
Such perfect joy therein I finde."

All the phenomena of nature, with such a mind, may be converted into so many sources of pleasure to us; and if we attend to her procedure it will be found that her most common things and appearances are the most agreeable. So that by contrast, and by investigation, we shall always find enjoyment in the world about us.

Gracefully and gently has waned the dying year, and brought us to the close of those Months, through which we have travelled so peacefully and profitably together. We trust the recollections of them will be pleasant to all, and that they will inspire us to future usefulness in the new duties which will cluster around us, with the in-coming of the new year.

Farewell, then, Year Eighteen Hundred and Fifty-five. Though thou didst bring gray hairs to some,—to youth some sorrows,—to manhood some sharp trials,—and to all, didst mingle some bitterness with the sweet cup of life, yet we will cherish thee as a period of great practical improvement,—a period of success to the tiller of the so and we trust of progress towards higher and holier purposes in all.

CAUSES OF INDIGESTION.—Doctor Wieting, when lecturing at the Brooklyn Institute, lately, described the manner in which persons destroy their stomachs, and produce indigestion and dyspepsia. A gentleman sits down to dinner, and partakes of a multitude of dishes, each seemingly prepared for the purpose of coaxing the stomach to accept more than it can digest. Being completely loaded, it sets to work to agitate the heap, and put it through the process of digestion. The gentleman then starts for home and sees some seductive looking apples on a stand, which he thinks he should like to eat. He purchases a few and commences to gulp them down. "Halloo!" says the stomach, looking up in alarm, "what are you about there? I have more work than I can attend to already." However, remonstrance is in vain, and with a gripe or two, the stomach goes to work as before. The gentleman next meets with a friend; a glass of wine, a brandy smash. or some other liquid compound is gulped down, aided by some tobacco fumes. Supplies are lowered into the stomach like bales of cotton into the hold of a Mississippi steamer, until the organ, wearied and overburdened, gives up in disgust, and leaves the mass to indigestion, dyspepsia, and its train of accompanying evils. Thus the harmony of the system is destroyed, which might have been prevented by a little prudence and self-denial.

New England Farmer.

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New-Rochelle or Lawton
BLACKBERRY.

THE subscriber has been appointed agent by Messrs. George Seymour & Co., South Norwalk, Ct., for the sale of the genuine Plants, direct from their grounds, of this new and superior variety, fruit very large and sweet. It is an enormous bearer. Fine, strong plants will be ready for delivery in October and November, or March and April next, at $5 per dozen plants.

Also for sale, New or Pure Red Antwerp Raspberry Plants, Fruit Trees, Grape Vines, &c.; 15,000 Pear Trees on Quince Stocks; 10,000 do. do. on Pear Stocks, choice varieties at very low prices.
GEO. DAVENPORT,
14 Commercial, corner of Chatham Street, Boston.
October, 1856. *tf

Fruit and Ornamental Trees,
SHRUBS AND ROSES.

THE undersigned having been for several years engaged in selecting with care, TREES, SHRUBS and ROSES from Nursery grounds, to answer orders entrusted to him, confidently feels himself qualified to satisfactorily answer the orders of those who like to purchase the BEST article in this line. By giving his personal attention to the selection of trees from none but the most reliable Nurseries, to packing them in the safest manner and accompanying them past the Hudson, to prevent delay, he is able to forward his customers a superior article in the most perfect order.

I visit Rochester, Spring and Fall, and, as purchasers may readily conceive, I can often fill, more satisfactorily, orders received in season to fill from the numerous and extensive Nurseries at Rochester, than those delayed to be confined to a stock I could be expected to bring out.

Having made permanent arrangements with B. MATTISON & Co., proprietors of the Genesee Falls Nurseries, Rochester, N. Y., for a constant supply of the most choice varieties of STANDARD PEAR TREES, of bearing size and symmetrical form, cultivated exclusively from native seedling Pear stock, I am now prepared to supply an article superior in quality to any heretofore offered. The superior quality of these trees over those of other Nurseries, is the result of an improved mode of cultivation. The eminent position to which Mr. Mattison has attained in the Horticultural world, by his extensive experience, skill and integrity, is deemed a sufficient recommend for trees sent from their grounds. For myself I have been permitted to refer to J. A. Nash, Editor of the Connecticut Valley Farmer, Amherst, Mass., Leander Wetherell, formerly Editor of the Amherst Express, Amherst, Mass., Dr. Wm. L. Fitch, Springfield, Mass., J. B. Merrick, Palmer, Mass., and my customers generally.

All orders thankfully received and promptly and carefully attended to, and should be addressed to the subscriber at the Thorndike P. O., Palmer, Mass. M. L. HITCHCOCK

Farm for Sale.

Said Farm lies in CONWAY, between one and two miles east of the village, and four miles west of South Deerfield Depot. It contains 337 acres; and its feasibleness, its natural fertility, and the high state of cultivation in which it now is, render it an object for any one who wishes to farm on a liberal scale. As the persons interested in its sale are desirous of disposing of it soon enough to give possession in April next, they invite attention to the stock now on the farm, and to the crops and fruit just gathered in, as affording the most reliable index to its capability.

For particulars, inquire of JOHN FIELD on the premises, or of the subscriber, at Amherst, Mass.
Nov. 24, 1855. 3w1* J. A. NASH, Admr.

J. HAPGOOD,
MANUFACTURER AND IMPORTER OF
GUNS, RIFLES AND PISTOLS,
Cast Steel and Iron Rifle Barrels,
GUN LOCKS AND GUN TRIMMINGS.

Dealer in the Hazard Company and Enfield Company's Sporting Powder, of various qualities and sizes of grain, elegantly put up in Kegs and Canisters, and manufactured expressly for the Boston market. Also, Shot and Balls, Percussion Caps, Hunting Knives and Flasks, Powder Flasks, Shot Pouches, Game Bags, Fish Baskets, &c. &c. Embracing every description of Hunters' Goods.

12 Washington Street, Boston.

WHEELER & WILSON'S
FAMILY SEWING MACHINE.

THIS Improved Machine is rapidly coming into general favor, and is acknowledged to be the *only* machine adapted to family use. The beauty and durability of its stitching is unrivalled, working equally on fine cambric, linen, quilting and heavy broadcloth. Its rapid and noiseless operation is an advantage possessed by no other machine, while its simplicity of construction renders it easier to be used and less liable to need repairs—an objection reasonably urged against every other machine. To Families, Tailors, Shirtmakers, Milliners, &c., it is invaluable.

These celebrated machines are in operation and for sale at

93 Court Street, Corner of Cornhill,

Where specimens of their work will be furnished at any time.
Feb. 1855. 1y. J. E. ROOT, Agent.

Ruggles, Nourse, Mason & Co.,
Manufacturers and Dealers in all kinds of
AGRICULTURAL IMPLEMENTS
AND MACHINES,
Such as Horse Powers and Threshers,
FANNING MILLS, KETCHUM'S MOWERS,
HORSE AND HAND RAKES,
Superior Plows, of all Kinds and Sizes,
HORSE HOES, SEED SOWERS, CORN PLANTERS, PORTABLE GRINDING MILLS,
Hay, Stalk and Straw Cutters,
STORE TRUCKS, SHOVELS,
SPADES, FORKS, HOES, &c.

MANUFACTORY AT WORCESTER,
WAREHOUSE,
Quincy Hall, Boston, Mass.
January, 1855.

Imported Fowls.

For sale at a moderate price, if applied for soon, several pair of Fowls bred from imported and prize stock, very pure and beautiful, of the following prolific breeds: White Shanghae, Black Spanish, Golden Pheasant, Silver Pheasant, Spangled Polish, Dutch every-day Layer, and Black Bantam.

Boxes prepared to contain the Fowls that will give them ease and safety on a long journey. H. H. LITTLE.
East Marshfield, Mass., Oct. 13, 1855. 4w2*

The Hundred Dialogues
FOR READING, SPEAKING AND EXHIBITION IN SCHOOLS.

THIS book contains *one hundred and ten new dialogues* never before published, written by a teacher of thirty years' experience, for *school exhibitions* and general reading. It contains those that are long, short, humorous, serious, comic, witty, amusing, and instructive—all having a high moral tone. "The serious ones are not heavy, and the comic ones not coarse." All agree in pronouncing it the *Best Book of Dialogues* ever published. *For sale* by Book-sellers. Price by mail, prepaid, $1,00. MORRIS COTTON, Publisher, 120 Washington Street, Boston. 3w*1 Nov. 17

NEW ENGLAND FARMER.

The present number of the FARMER closes the SEVENTH VOLUME. To those who have been readers of the magazine for several years, we need not say how much the closing volume is superior to any of the former ones. We have spared neither pains nor expense, to make it the most valuable and

BEST JOURNAL FOR THE FARMER

in New England. How far we have succeeded, we leave our readers to judge. With the new year, we shall increase our efforts to place the FARMER

AT THE HEAD OF THE AGRICULTURAL PRESS.

Our circulation having MORE THAN DOUBLED during the past year, we have increased means for carrying out these designs, and feel encouraged to greater exertions by this token of an appreciation of our labors on the part of the reading farmers. It is our purpose to increase the NUMBER AND BEAUTY OF THE ILLUSTRATIONS, and to that end we have already on hand designs and engravings which have cost us SEVERAL HUNDRED DOLLARS. These will be produced from month to month, and will add very much to the beauty of the coming volume. Among our illustrations we shall present several

Plans of Cottages and Country Houses,

both as desirable hints to builders, and as simple specimens of taste and beauty in the construction of suburban and farm residences. These designs will be accompanied with articles, practical and suggestive, and will not only be found "pleasant to look at," but valuable as models. The beautiful series of engravings representing our

BEST AND CHOICEST FRUITS,

began in the present volume, will be continued through another year. We have also many

ENGRAVINGS OF PRIZE ANIMALS,

and others of a miscellaneous character, so that our resources are amply sufficient to carry out fully the plans we have formed for the New Year. The Monthly will also be printed better than the past year, and everything that can add to its value will be done by editors and publisher, to make it worthy of the support of the farmers of New England.

TO OUR SUBSCRIBERS,

We would say that it is our custom to continue the FARMER, whether paid in advance or not, until we have a positive order for discontinuance. Such therefore as are desirous of closing their subscriptions, are requested to do so before the January number is distributed.

☞ BINDING.—It has been our custom to bind the FARMER, neatly and securely, in muslin, for 25 CENTS A VOLUME. We do this only for the sake of gratifying our subscribers, who would have to pay three times this amount to have their volumes bound singly. We shall continue this arrangement this year, and those who wish to preserve their volumes in handsome covers, can have them bound as above named by leaving them at this office.

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